

1994
IMPORTANT MANUAL

Do Not Throw Away

POULAN

PROTM

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OWNER'S MANUAL

MODEL:

PP1644JA

LAWN TRACTOR

Always Wear Eye Protection During Operation

POULAN PRO

Shreveport, Louisiana 71139-9329

954 00 52-51

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Printed in U.S.A.

WARNING:

Read this Manual and follow all Warnings and Safety Instructions. Failure to do so can result in serious injury.



SAFETY RULES

Safe Operation Practices for Ride-On Mowers



IMPORTANT: THIS CUTTING MACHINE IS CAPABLE OF AMPUTATING HANDS AND FEET AND THROWING OBJECTS
FAILURE TO OBSERVE THE FOLLOWING SAFETY INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH

I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.

II. SLOPE OPERATION

Slopes are a major factor related to loss-of-control and tipover accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

DO:

- Mow up and down slopes, not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. *Tall grass can hide obstacles.*
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extra care with grass catchers or other attachments. These can change the stability of the machine.
- Keep all movement on the slopes *slow and gradual*. Do not make sudden changes in speed or direction.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly *straight* down the slope.

DO NOT:

- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.
- Do not mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
- Do not mow on wet grass. Reduced traction could cause sliding.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not use grass catcher on steep slopes.

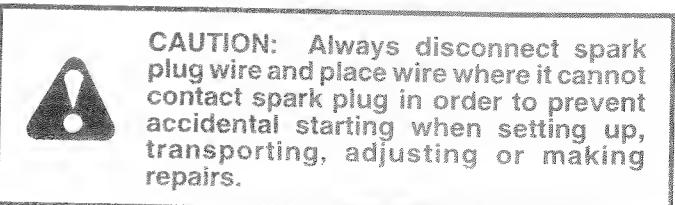
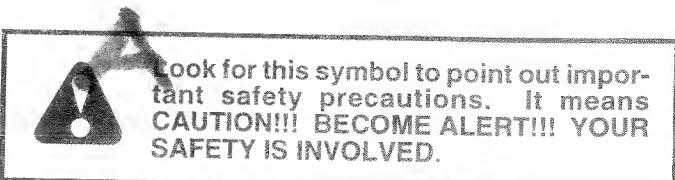
III. CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.

- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

IV. SERVICE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
 - Use only an approved container.
 - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
 - Never refuel the machine indoors.
 - Never store the machine or fuel container inside where there is an open flame, such as a water heater.
- Never run a machine inside a closed area.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.



CONGRATULATIONS on your purchase of a new tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest authorized service center. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

Please read and retain this manual. The instructions will enable you to assemble and maintain your tractor properly. Always observe the "SAFETY RULES".

MODEL NUMBER	PP1644J
SERIAL NUMBER	_____
DATE OF PURCHASE	_____
THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A PLATE UNDER THE SEAT.	
YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.	

PRODUCT SPECIFICATIONS

HORSEPOWER:	16.0
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OIL TYPE (API-SG):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)
OIL CAPACITY:	W/ FILTER: 4.0 PINTS W/O FILTER: 3.5 PINTS
SPARK PLUG: (GAP: .025")	CHAMPION RV17YC
VALVE CLEARANCE:	INTAKE: .003" - .006" EXHAUST: .013" - .016"
GROUND SPEED (MPH):	1st 1.14 2nd 1.49 3rd 2.34 4th 3.49 5th 4.45 6th 5.68 Rev. 1.75
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	15 AMPS @3600 RPM
BLADE BOLT TORQUE:	30-35 FT. LBS.

CUSTOMER RESPONSIBILITIES

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your tractor.
- Follow the instructions under "Customer Responsibilities" and "Storage" sections of this manual.

WARNING: This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

A spark arrester for the muffler is available through your nearest authorized service center/department (See REPAIR PARTS section of this manual).

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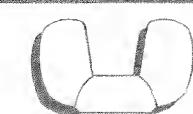
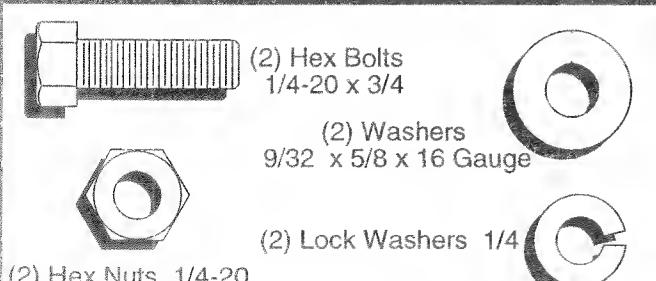
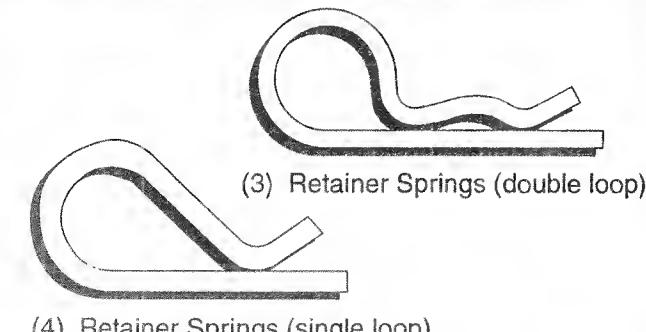
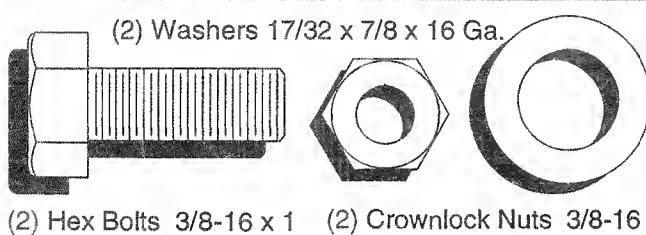
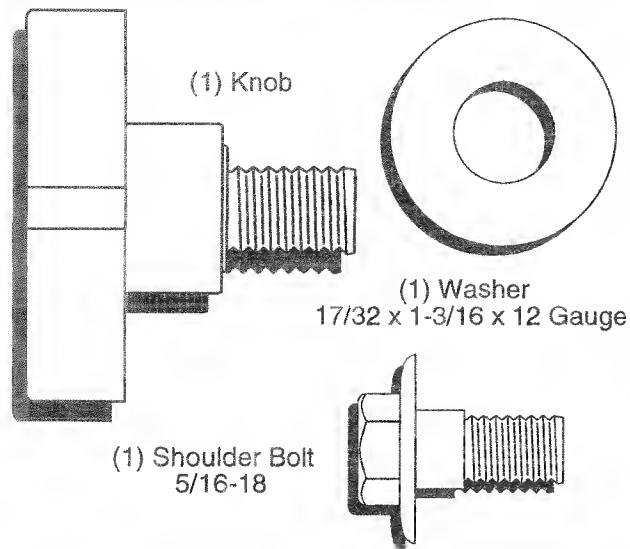
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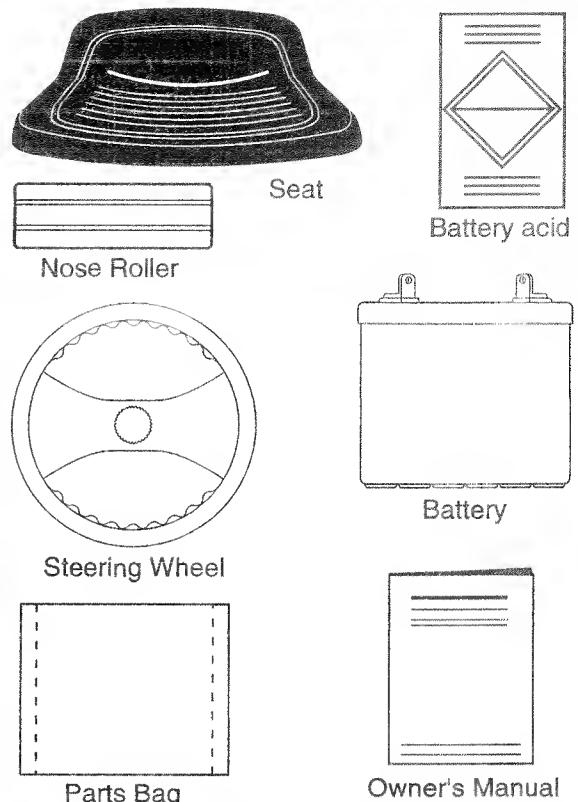
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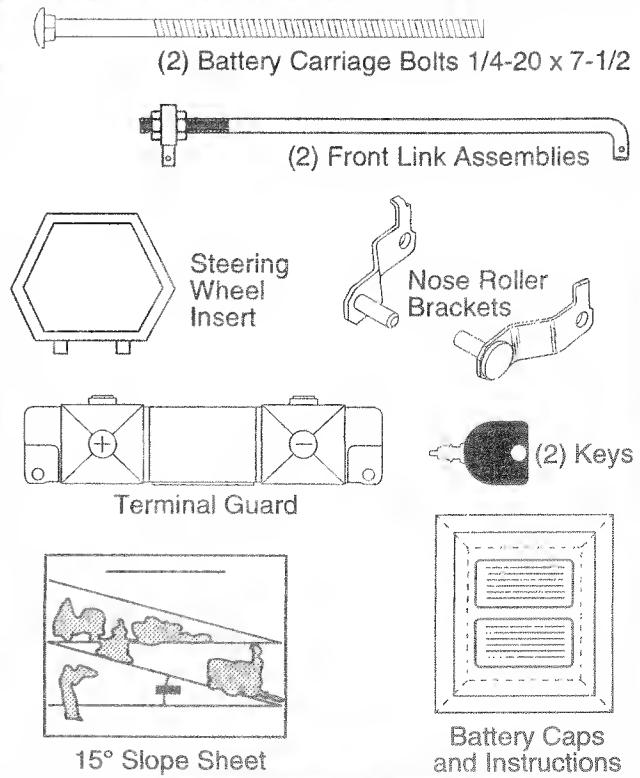
Parts Bag contents shown full size



Parts packed separately in carton



Parts bag contents not shown full size



ASSEMBLY

Your new tractor has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tractor, all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure tightness.

TOOLS REQUIRED FOR ASSEMBLY

A socket wrench set will make assembly easier. Standard wrench sizes are listed.

(2) 7/16" wrenches	Phillips Screwdriver
(1) 1/2" wrench	Utility knife
(1) 9/16" wrench	Tire pressure gauge

When right and left hand is mentioned in this manual, it means when you are in the operating position (seated behind the steering wheel).

TO REMOVE TRACTOR FROM CARTON UNPACK CARTON

- Remove all accessible loose parts and parts cartons from carton (See page 5).
- Cut along lines on carton, from top to bottom, all four corners of carton and lay panels flat.
- Check for any additional loose parts or cartons and remove.

BEFORE ROLLING TRACTOR OFF SKID

ATTACH STEERING WHEEL (See Fig. 1)

- Remove locknut and large flat washer from steering shaft.
- Position front wheels of the tractor so they are pointing straight forward.
- Position steering wheel so cross bars are horizontal (left to right) and slide onto adapter.
- Secure steering wheel to steering shaft with locknut and large flat washer previously removed. Tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective plastic from tractor hood and grill.

IMPORTANT: CHECK FOR AND REMOVE ANY STAPLES IN SKID THAT MAY PUNCTURE TIRES WHERE TRACTOR IS TO ROLL OFF SKID.

TO ROLL TRACTOR OFF SKID (See Fig. 1)

- Raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place gearshift lever in neutral (N) position.
- Roll tractor backwards off skid.

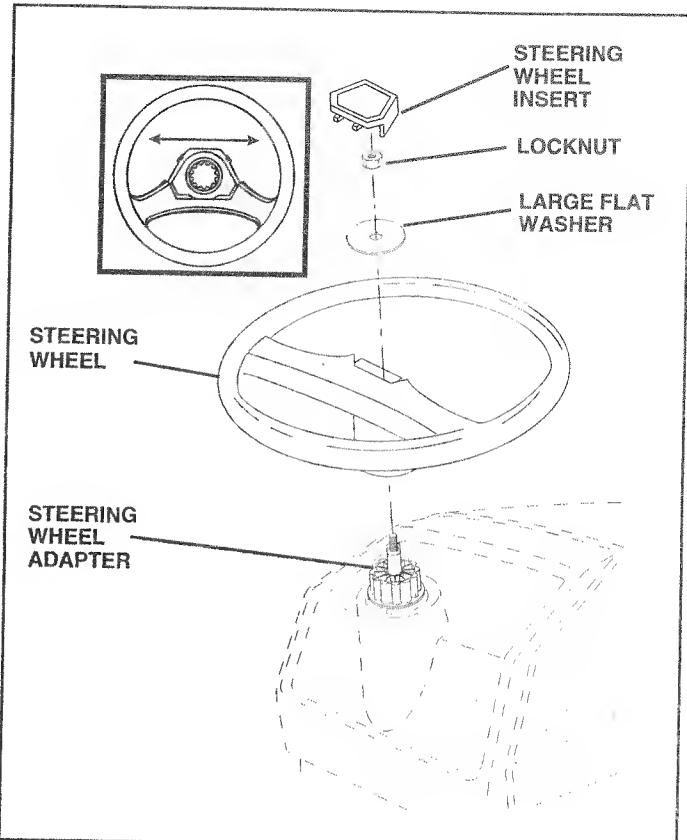


FIG. 1

HOW TO SET UP YOUR TRACTOR

PREPARE BATTERY (See Fig. 2)



CAUTION: Wear eye and face shield. Wash hands or clothing immediately if accidentally in contact with battery acid. Do not smoke. Fumes from charged battery acid are explosive. Read the instructions included with the battery vent caps. Always wear gloves, clothing and goggles to protect your hands, skin and eyes.

Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- See instructions packed with vent caps in parts bag.
- Fill battery with acid. Fill each cell until it reaches the bottom of the vent wells. Do not overfill.
- Allow battery to stand and settle for at least thirty minutes. After standing, check the level of acid. If below the vent wells, add more acid until the correct level is reached.

ASSEMBLY

While battery is standing (after adding acid) and later, while battery is being charged, continue with assembly of tractor.

IMPORTANT: TO MAXIMIZE THE LIFE OF YOUR BATTERY, IT IS NECESSARY THAT THE BATTERY BE CHARGED BEFORE USE. FAILURE TO CHARGE BATTERY CAN RESULT IN A SHORTENED BATTERY LIFE.

- Charge battery at a rate of 6 amperes for 1 hour. Use a 12 volt battery charger. Observe all safety precautions required for battery charging.
- Check the acid level after the battery is charged. If the acid has fallen below the correct level, add distilled or iron free water.
- Install the vent caps to cover the vent wells. Wash the top of the battery with water to remove any acid, then wipe dry.
- Check battery case for leakage to make sure that no damage has occurred in handling.
- Dispose of excess battery acid. Neutralize acid for disposal by adding it to 2 gallons of water in a five gallon plastic container. Stir with a wooden or plastic paddle while adding baking soda until the addition of more soda causes no more foaming.
- Follow instructions on how to install battery.

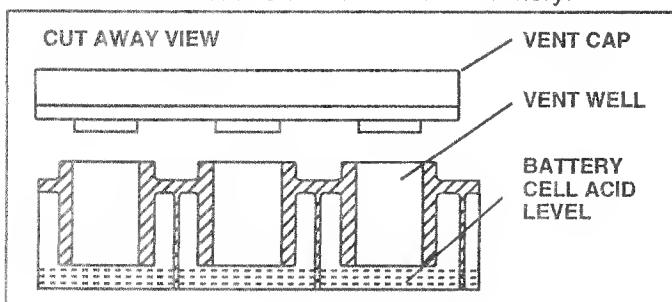


FIG. 2

INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment knob.

- Remove cardboard packing on seat pan.
- Place seat on pan and assemble shoulder bolt.
- Assemble adjustment knob and flat washer loosely. Do not tighten.
- Tighten shoulder bolt securely.
- Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment knob securely.

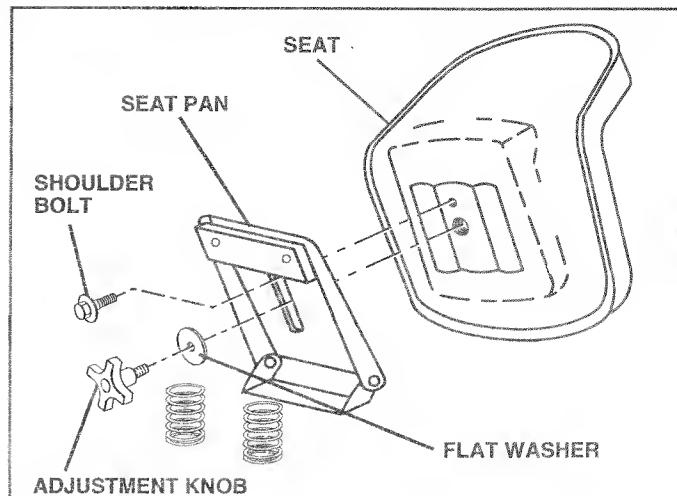


FIG. 3

TO ATTACH NOSE ROLLER (See Fig. 4)

- Position brackets, washers and nose roller between deck mounting brackets as shown. Be sure to position brackets on correct side, as shown.
- Install hex bolts and locknuts as shown. Tighten hardware securely.

NOTE: Be sure tabs brackets are positioned in tab holes in deck brackets.

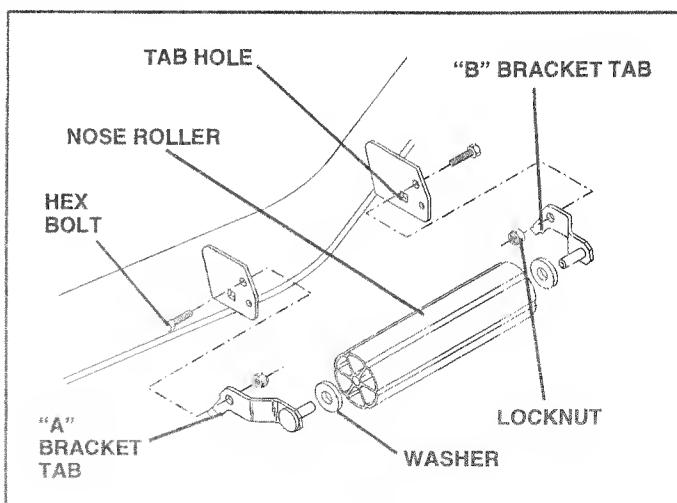


FIG. 4

CHECK TIRE PRESSURE

The tires on your tractor were overinflated at the factory for shipping purposes. Correct tire pressure is important for best cutting performance.

- Reduce tire pressure to PSI shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

CHECK BRAKE SYSTEM

After you learn how to operate your tractor, check to see that the brake is properly adjusted. See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual.

ASSEMBLY

INSTALL MOWER AND DRIVE BELT (See Figs. 5 and 8)

Be sure tractor is on level surface. Engage parking brake.

- Cut and remove tie down wire holding anti-sway bar. Swing anti-sway bar to left side of mower deck.
- Relieve idler tension from belt. Push idler forward and place a block (standard wood 2 x 4 or equivalent) behind idler pulley.
- Slide mower under tractor with discharge guard to right side of tractor.
- Install one front link in top hole of the L.H. front mower bracket and L.H. front suspension bracket. Retain with two single loop retainer springs as shown.
- Slide right side of mower deck forward, toward R.H. front tire.
- Check belt for proper routing in all mower pulley grooves. Install belt into electric clutch pulley groove.
- Install second front link in the top hole of the R.H. front mower bracket and R.H. front suspension bracket. Retain with two single loop retainer springs as shown.
- Carefully remove block from behind idler pulley.
- Turn height adjustment knob counterclockwise until it stops.
- Lower mower linkage with attachment lift lever.
- Place the suspension arms on outward pointing deck pins. If necessary, raise front of mower to align deck pins with the holes in suspension arms. Retain with double loop retainer springs.
- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- Turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise deck to highest position.

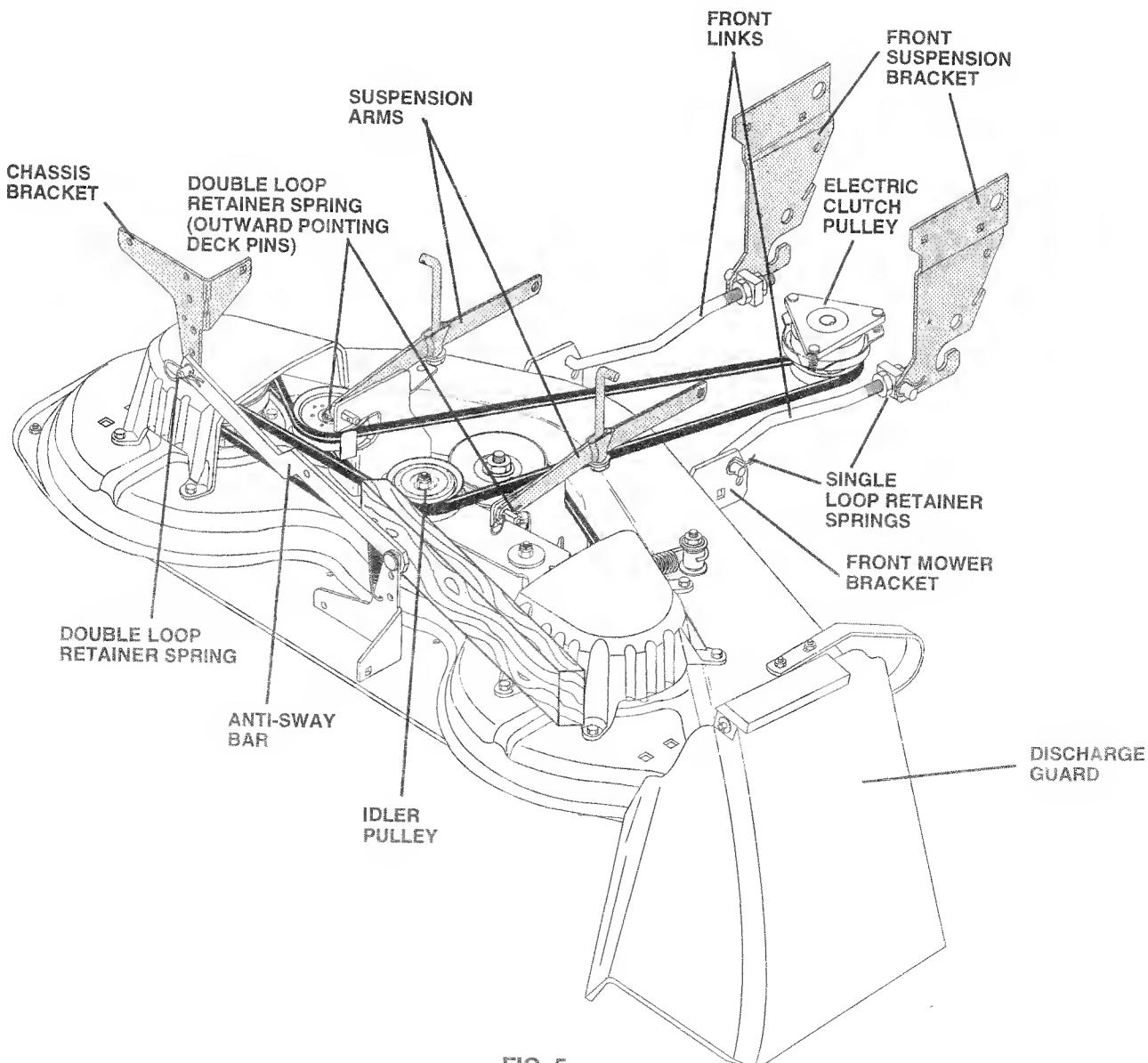


FIG. 5

ASSEMBLY

CHECK DECK LEVELNESS

For best cutting results, mower housing should be properly leveled. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.

CHECK FOR PROPER POSITION OF ALL BELTS

See the figures that are shown for replacing motion and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly.

INSTALL BATTERY (See Figs. 6 & 7)



CAUTION: Do not short battery terminals. Before installing battery, remove metal bracelets, wristwatch bands, rings, etc.

Positive terminal must be connected first to prevent sparking from accidental grounding.

- Lift hood to raised position.
- Be sure battery drain tube has not come loose and is securely attached to drain in battery tray.
- Lower battery into battery tray with terminals to rear of tractor.
- First connect RED battery cable to positive (+) battery terminal with hex bolt, flat washer, lock washer and hex nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.
- Slide the two battery bolts through the terminal guard and start the wing nuts onto the threads.
- Position terminal guard over the battery as shown, lower bolts into key holes and slide square shafts of bolts into slots of key holes.
- Tighten wing nuts by hand making sure battery bolts remain in slots of the key holes in the battery support.
- Be sure terminal access doors are closed.

Use terminal access doors for:

- Inspection for secure connections (to tighten hardware).
- Inspection for corrosion.
- Testing battery.
- Jumping (if required).
- Periodic charging.

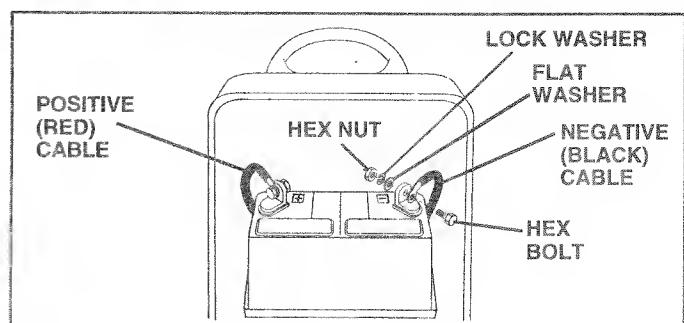


FIG. 6

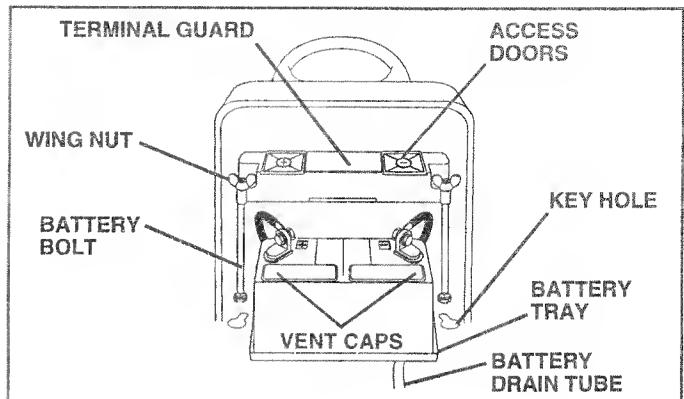


FIG. 7

✓ CHECKLIST

BEFORE YOU OPERATE AND ENJOY YOUR NEW TRACTOR, WE WISH TO ASSURE THAT YOU RECEIVE THE BEST PERFORMANCE AND SATISFACTION FROM THIS QUALITY PRODUCT.

PLEASE REVIEW THE FOLLOWING CHECKLIST:

- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- ✓ Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
- ✓ Be sure mower deck is properly leveled side-to-side/ front-to-rear for best cutting results. (Tires must be properly inflated for leveling).
- ✓ Check mower and drive belts. Be sure they are routed properly around pulleys and inside all belt keepers.
- ✓ Check wiring. See that all connections are still secure and wires are properly clamped.

WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:

- ✓ Engine oil is at proper level.
- ✓ Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- ✓ Become familiar with all controls - their location and function. Operate them before you start the engine.
- ✓ Be sure brake system is in safe operating condition.

OPERATION

KNOW YOUR TRACTOR

READ THIS OWNER'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR TRACTOR

Compare the illustrations with your tractor to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.

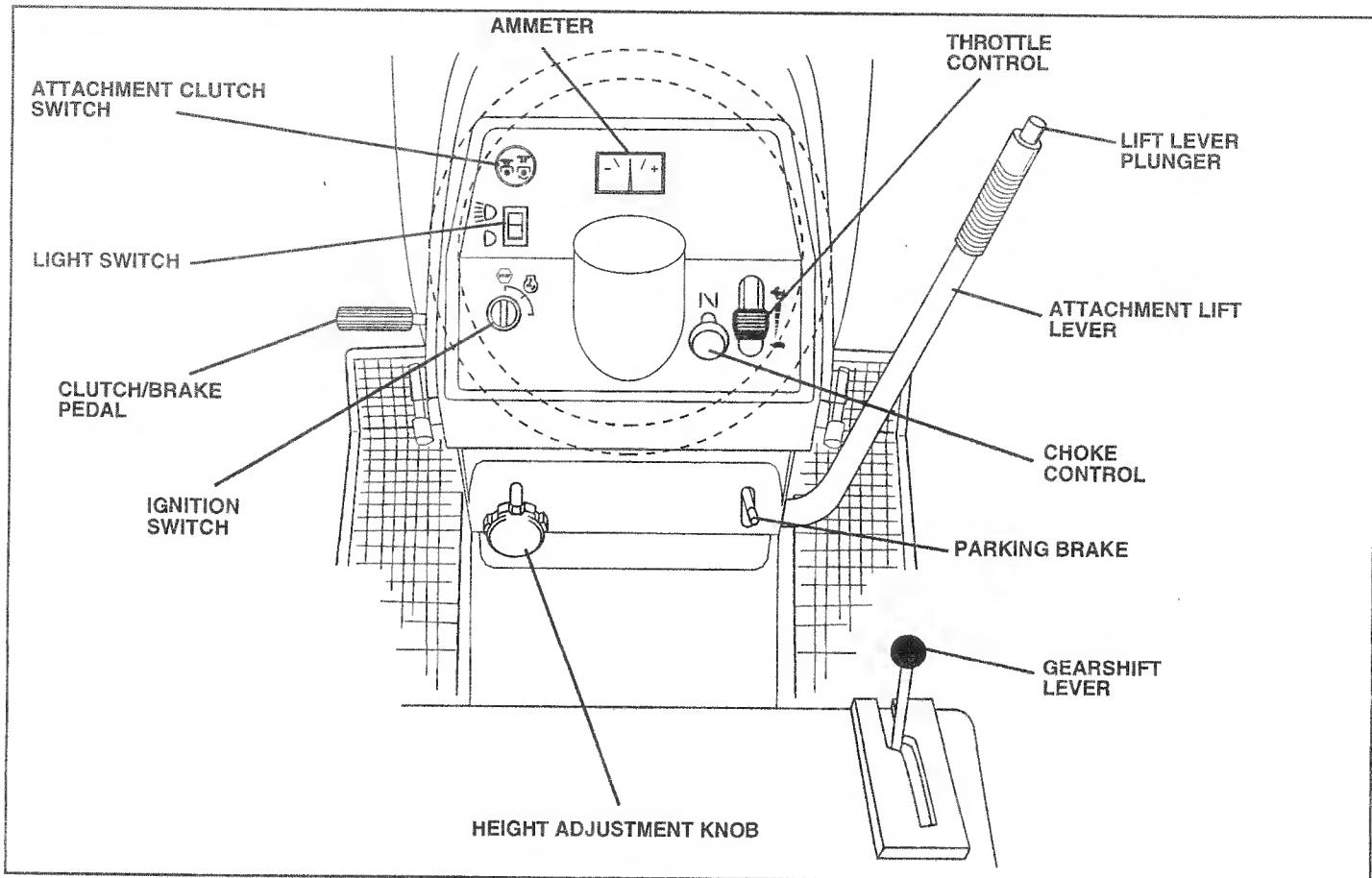


FIG. 8

Our tractors conform to the safety standards of the American National Standards Institute.

ATTACHMENT CLUTCH SWITCH: Used to engage the mower blades, or other attachments mounted to your tractor.

THROTTLE CONTROL - Used to control engine speed.

CHOKE CONTROL - Used when starting a cold engine.

CLUTCH/BRAKE PEDAL: Used for declutching and braking the tractor and starting the engine.

PARKING BRAKE: Locks clutch/brake pedal into the brake position.

HEIGHT ADJUSTMENT KNOB - Used to adjust the mower height.

GEARSHIFT LEVER: Selects the speed and direction of tractor.

ATTACHMENT LIFT LEVER: Used to raise and lower the mower deck or other attachments mounted to your tractor.

LIFT LEVER PLUNGER: Used to release attachment lift lever when changing its position.

IGNITION SWITCH: Used for starting and stopping the engine.

AMMETER - Indicates charging (+) or discharging (-) of battery.

LIGHT SWITCH: Turns the headlights on and off.

OPERATION



The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask for over the spectacles or standard safety glasses.

HOW TO USE YOUR TRACTOR TO SET PARKING BRAKE (See Fig. 9)

- Depress clutch/brake pedal into full "BRAKE" position and hold.
- Place parking brake lever in "ENGAGED" position and release pressure from clutch/brake pedal. Pedal should remain in "BRAKE" position. Make sure parking brake will hold tractor secure.

STOPPING (See Fig. 9)

MOWER BLADES -

- Move attachment clutch switch to "DISENGAGED" position.



CAUTION: Always stop tractor completely, as described above, before leaving the operator's position; to empty grass catcher, etc.

TO USE THROTTLE CONTROL (See Fig. 9)

Always operate engine at full throttle.

- Operating engine at less than full throttle reduces the battery charging rate.
- Full throttle offers the best bagging and mower performance.

TO USE CHOKE CONTROL (See Fig. 9)

Use choke control whenever you are starting a cold engine. Do not use to start a warm engine.

- To engage choke control, pull knob out. Slowly push knob in to disengage.

TO MOVE FORWARD AND BACKWARD (See Fig. 9)

The direction and speed of movement is controlled by the gearshift lever.

- Start tractor with clutch/brake pedal depressed and gearshift lever in neutral (N) position.
- Move gearshift lever to desired position.
- Slowly release clutch/brake pedal to start movement.

IMPORTANT: BRING TRACTOR TO A COMPLETE STOP BEFORE SHIFTING OR CHANGING GEARS. FAILURE TO DO SO WILL SHORTEN THE USEFUL LIFE OF YOUR TRANSAXLE.

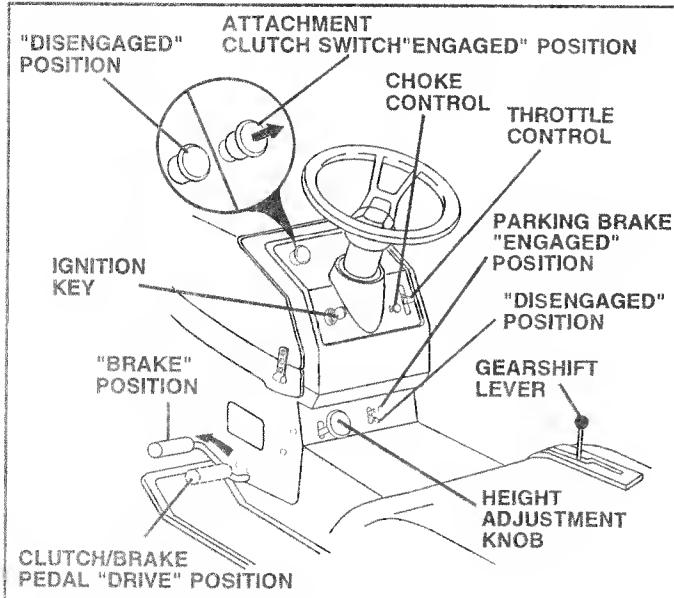


FIG. 9

GROUND DRIVE -

- Depress clutch/brake pedal into full "BRAKE" position.
- Move gearshift lever to neutral (N) position.

ENGINE -

- Move throttle control to slow (怠) position.

NOTE: Failure to move throttle control to slow (怠) position and allowing engine to idle before stopping may cause engine to "backfire".

- Turn ignition key to "OFF" position and remove key. Always remove key when leaving tractor to prevent unauthorized use.
- Never use choke to stop engine.

NOTE: Under certain conditions when unit is standing idle with the engine running, hot engine exhaust gases may cause "browning" of grass. To eliminate this possibility, always stop engine when stopping tractor on grass areas.

TO ADJUST MOWER CUTTING HEIGHT (See Fig. 9)

The cutting height is controlled by turning the height adjustment knob in desired direction.

- Turn knob clockwise (↑) to raise cutting height.
- Turn knob counterclockwise (↓) to lower cutting height.

The cutting height range is approximately 1-1/2" to 4". The heights are measured from the ground to the blade tip with the engine not running. These heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.

- The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.
- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first cut relatively high; the second to desired height.

OPERATION

TO OPERATE MOWER (See Fig. 10)

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the mower clutch engaged will shut off the engine.

- Select desired height of cut.
- Lower mower with attachment lift control.
- Start mower blades by engaging attachment clutch control.
- TO STOP MOWER BLADES - disengage attachment clutch control.



CAUTION: Do not operate the mower without either the entire grass catcher, on mowers so equipped, or the discharge guard in place.

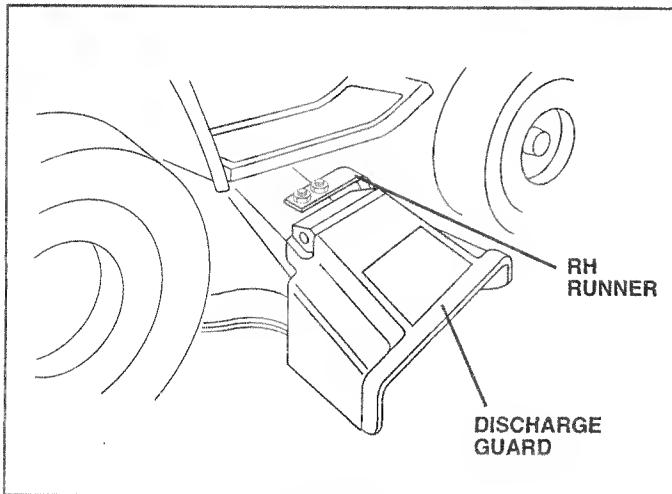


FIG. 10

TO OPERATE ON HILLS



CAUTION: Do not drive up or down hills with slopes greater than 15° and do not drive across any slope.

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move gearshift lever to 1st gear. Be sure you have allowed room for tractor to roll slightly as you restart movement.
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Make all turns slowly.

TO TRANSPORT

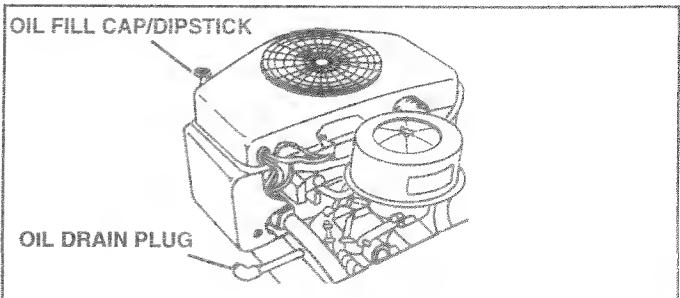
- Raise attachment lift to highest position with attachment lift control.
- When pushing or towing your tractor, be sure gearshift lever is in neutral (N) position.
- Do not push or tow tractor at more than five (5) MPH.

NOTE: To protect hood from damage when transporting your tractor on a truck or a trailer, be sure hood is closed and secured to tractor. Use an appropriate means of tying hood to tractor (rope, cord, etc.).

BEFORE STARTING THE ENGINE

CHECK ENGINE OIL LEVEL (See Fig. 11)

- The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.
- Check engine oil with tractor on level ground.
- Remove oil fill cap/dipstick and wipe clean, reinsert the dipstick and push it all the way down into the tube, wait for a few seconds, remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.



OPERATION

ADD GASOLINE

- Fill fuel tank. Use fresh, clean, regular unleaded gasoline. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life).

IMPORTANT: WHEN OPERATING IN TEMPERATURES BELOW 32°F (0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

WARNING: Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.



CAUTION: Fill to bottom of gas tank filler neck. Do not overfill. Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

TO START ENGINE (See Fig. 9)

When starting engine for the first time or if engine has run out of fuel, it will take extra cranking time to move fuel from the tank to the engine.

- Depress clutch/brake pedal and set parking brake.
- Place gearshift lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Pull choke control out to choke (N) position for cold engine start. For warm engine start do not use choke control.
- Move throttle control to midway between fast (→) and slow (←) positions.
- Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If engine does not start after several attempts, move throttle control to fast (→) position, wait a few minutes and try again.
- When engine starts, slowly push choke control in.
- Move throttle control to fast (→) position.
- Allow engine to warm up for a few minutes before engaging drive or attachments.

NOTE: If at a high altitude (above 3000 feet) or in cold temperatures (below 32°F), the carburetor fuel mixture may need to be adjusted for best engine performance. See "TO ADJUST CARBURETOR" in the Service and Adjustments section of this manual.

MOWING TIPS

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- Use the runner on the right hand side to mower as a guide. The blade cuts approximately an inch outside the runner (See Fig. 10).
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 12).
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

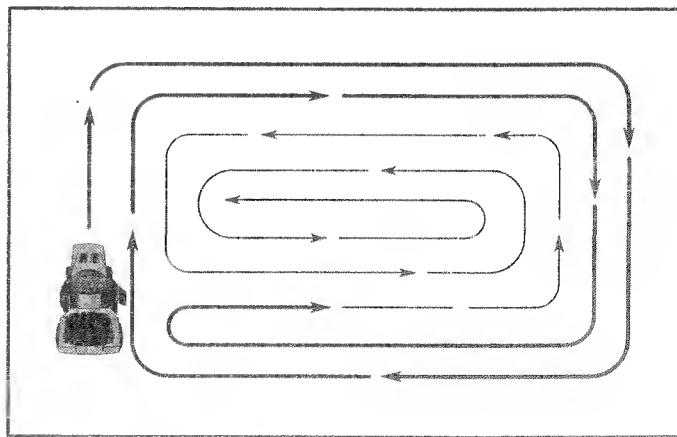


FIG. 12

CUSTOMER RESPONSIBILITIES

MAINTENANCE SCHEDULE		BEFORE EACH USE	FIRST 2 HOURS	EVERY 8 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	EVERY SEASON	BEFORE STORAGE	SERVICE DATES
TRACTOR	Check Brake Operation	✓	✓							
	Check Tire Pressure	✓	✓							
	Check for Loose Fasteners	✓						✓		
	Sharpen/Replace Mower Blades			✓ ⁴						
	Lubrication Chart			✓				✓		
	Check Battery Level/Recharge			✓						
	Clean Battery and Terminals			✓				✓		
	Check Transaxle Cooling			✓						
	Adjust Blade Belt(s) Tension					✓ ⁵				
	Adjust Motion Drive Belt(s) Tension					✓ ⁵				
ENGINE	Check Engine Oil Level	✓	✓							
	Change Engine Oil		✓	✓ ^{1,2,3}				✓		
	Clean Air Filter			✓ ²						
	Clean Air Screen			✓ ²						
	Inspect Muffler/Spark Arrestor				✓					
	Replace Oil Filter (If equipped)					✓ ^{1,2}				
	Clean Engine Cooling Fins					✓ ²				
	Replace Spark Plug					✓	✓			
	Replace Air Filter Paper Cartridge					✓ ²				
	Replace Fuel Filter						✓			

1 - Change more often when operating under a heavy load or in high ambient temperatures.

2 - Service more often when operating in dirty or dusty conditions.

3 - If equipped with oil filter, change oil every 50 hours.

4 - Replace blades more often when mowing in sandy soil.

5 - If equipped with adjustable system.

GENERAL RECOMMENDATIONS

The warranty on this tractor does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain tractor as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain your tractor.

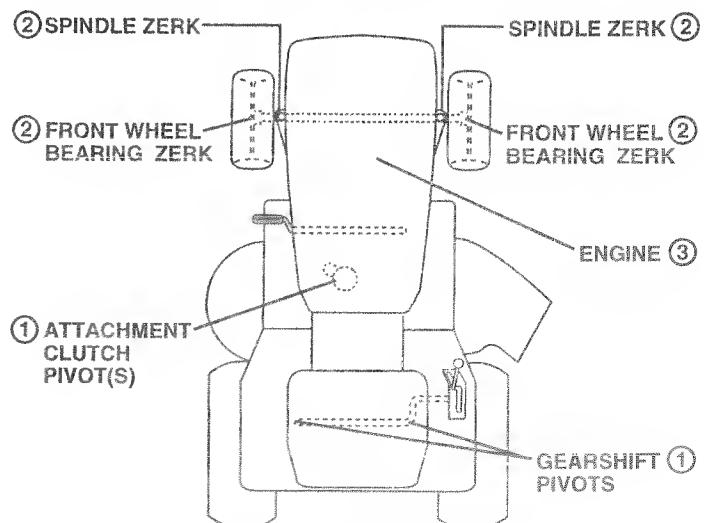
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

- Once a year you should replace the spark plug, clean or replace air filter, and check blades and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

BEFORE EACH USE

- Check engine oil level.
- Check brake operation.
- Check tire pressure.
- Check for loose fasteners.

LUBRICATION CHART



① SAE 30 OR 10W30 MOTOR OIL API - SG

② GENERAL PURPOSE GREASE

③ REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

IMPORTANT: DO NOT OIL OR GREASE THE PIVOT POINTS WHICH HAVE SPECIAL NYLON BEARINGS. VISCOUS LUBRICANTS WILL ATTRACT DUST AND DIRT THAT WILL SHORTEN THE LIFE OF THE SELF-LUBRICATING BEARINGS. IF YOU FEEL THEY MUST BE LUBRICATED, USE ONLY A DRY, POWDERED GRAPHITE TYPE LUBRICANT SPARINGLY.

CUSTOMER RESPONSIBILITIES

TRACTOR

Always observe safety rules when performing any maintenance.

BRAKE OPERATION

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted. (See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual).

TIRES

- Maintain proper air pressure in all tires (See "PRODUCT SPECIFICATIONS" on page 3 of this manual).
- Keep tires free of gasoline, oil, or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.

BLADE CARE

For best results mower blades must be kept sharp. Replace bent or damaged blades.

BLADE REMOVAL (See Fig. 13)

- Raise mower to highest position to allow access to blades.
- Remove hex bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.
- Reassemble hex bolt, lock washer and flat washer in exact order as shown.
- Tighten bolt securely (30-35 Ft. Lbs. torque).

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

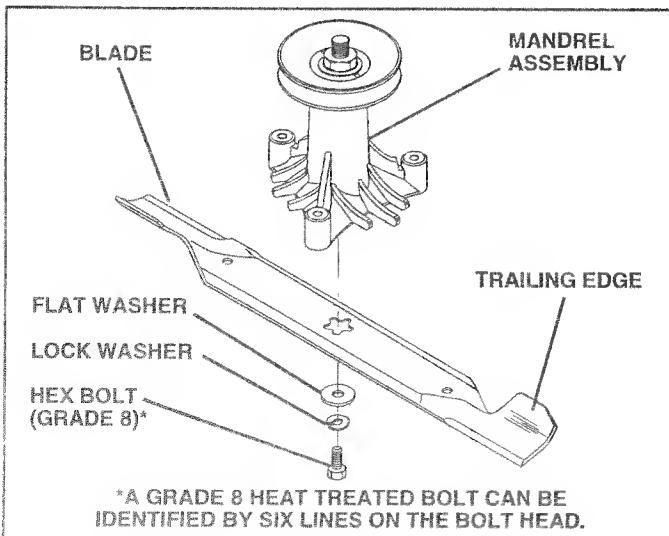


FIG. 13

TO SHARPEN BLADE (See Fig. 14)

Care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration and eventual damage to mower and engine.

- The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while on the mower.
- To check blade balance, you will need a 5/8" diameter steel bolt, pin, or a cone balancer. (When using a cone balancer, follow the instructions supplied with balancer).
- Slide blade on to an unthreaded portion of the steel bolt or pin and hold the bolt or pin parallel with the ground. If blade is balanced, it should remain in a horizontal position. If either end of the blade moves downward, sharpen the heavy end until the blade is balanced.

NOTE: Do not use a nail for balancing blade. The lobes of the center hole may appear to be centered, but are not.

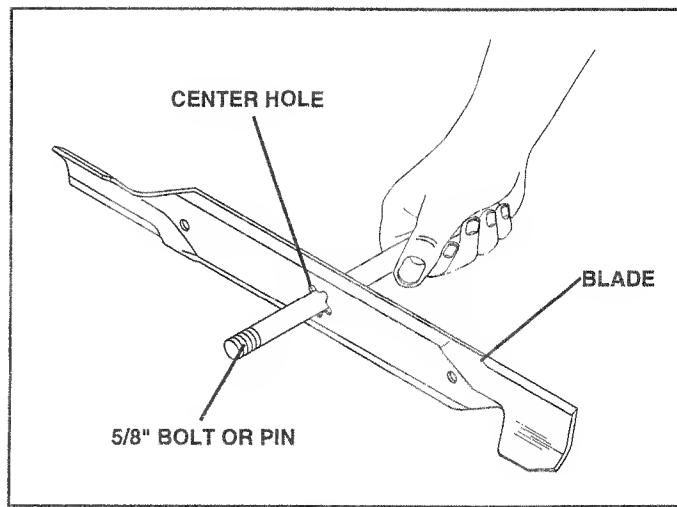


FIG. 14

CUSTOMER RESPONSIBILITIES

BATTERY (See Fig. 15)

Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- Acid solution level in each battery cell should be even with bottoms of vent wells. Add only distilled or iron free water if necessary. Do not overfill.
- Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep vent caps tight and small vent holes in caps open.
- Recharge at 6 amperes for 1 hour.

TO CLEAN BATTERY AND TERMINALS -

Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.

- Remove terminal guard.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Wash battery with solution of four tablespoons of baking soda to one gallon of water. Be careful not to get the soda solution into the cells.
- Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.
- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "INSTALL BATTERY" in the Assembly section of this manual).

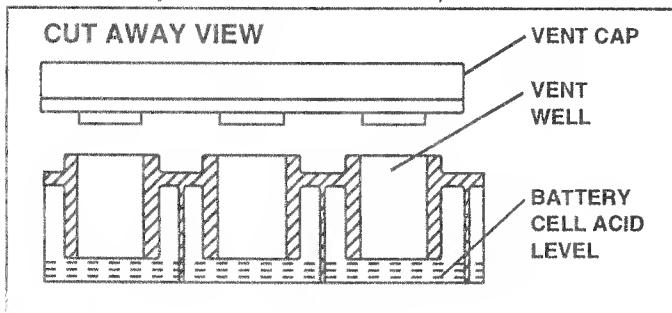


FIG. 15

V-BELTS

Check V-belts for deterioration and wear after 100 hours and replace if necessary. The belts are not adjustable. Replace belts if they begin to slip from wear.

TRANSAXLE COOLING

Keep transaxle free from build-up of dirt and chaff which can restrict cooling.

ENGINE

LUBRICATION

Only use high quality detergent oil rated with API service classification SG. Select the oil's SAE viscosity grade according to your expected operating temperature.

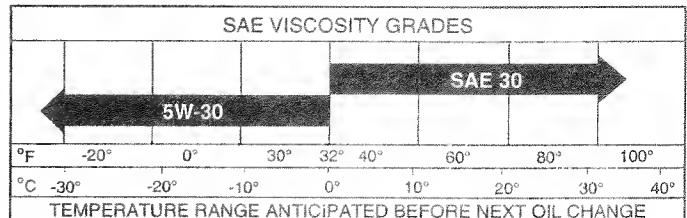


FIG.16

NOTE: Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after the first two hours of operation and every 50 hours thereafter or at least once a year if the tractor is not used for 50 hours in one year.

Check the crankcase oil level before starting the engine and after each eight (8) hours of continuous use. Tighten oil fill cap/dipstick securely each time you check the oil level.

TO CHANGE ENGINE OIL (See Figs. 16 and 17)

Determine temperature range expected before oil change. All oil must meet API service classification SG.

- Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove drain plug.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick is in all the way for accurate reading. Keep oil at "FULL" line on dipstick.

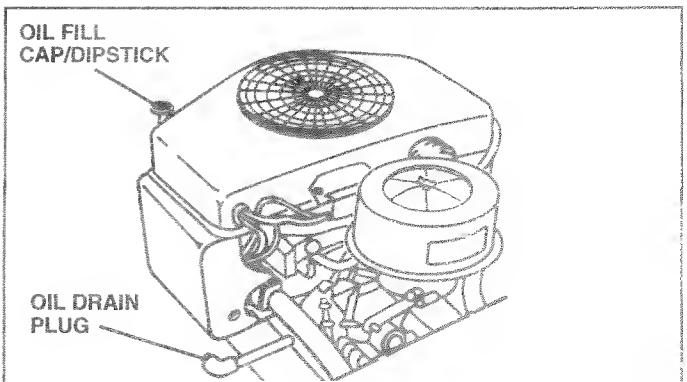


FIG.17

CUSTOMER RESPONSIBILITIES

CLEAN AIR SCREEN (See Fig. 18)

Air screen must be kept free of dirt and chaff to prevent engine damage from overheating. Clean with a wire brush or compressed air to remove dirt and stubborn dried gum fibers.

ENGINE COOLING FINS (See Fig. 18)

Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating. Engine blower housing must be removed. Remove side panels and hood (See "TO REMOVE HOOD AND GRILL ASSEMBLY" in the Service and Adjustments section of this manual).

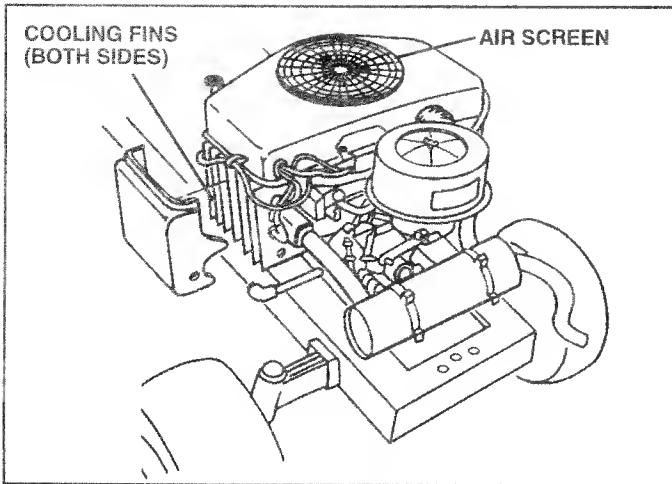


FIG. 18

AIR FILTER (See Fig. 19)

Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.

Service air cleaner more often under dusty conditions.

- Remove wing nut and cover.
- Remove seal and cartridge plate.

TO SERVICE PRE-CLEANER

- Slide foam pre-cleaner off cartridge.
- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.

TO SERVICE CARTRIDGE

- Gently tap the flat side of the paper cartridge to dislodge dirt. Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge. Replace a dirty, bent, or damaged cartridge.
- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reassemble air cleaner, cartridge plate, and seal.
- Install the air cleaner cover and wing nut. Tighten wing nut 1/2 turn to 1 full turn after nut contacts cover. Do not overtighten.

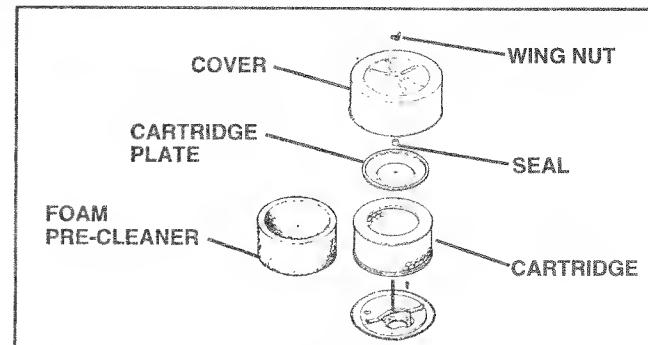


FIG. 19

ENGINE OIL FILTER

Replace the engine oil filter every season or every other oil change if the tractor is used more than 100 hours in one year.

MUFFLER

Inspect and replace corroded muffler and spark arrester (if equipped) as it could create a fire hazard and/or damage.

SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of operation, whichever comes first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

IN-LINE FUEL FILTER (See Fig. 20)

The fuel filter should be replaced once each season. If fuel filter becomes clogged, obstructing fuel flow to carburetor, replacement is required.

- With engine cool, remove filter and plug fuel line sections.
- Place new fuel filter in position in fuel line.
- Be sure there are no fuel line leaks and clamps are properly positioned.
- Immediately wipe up any spilled gasoline.

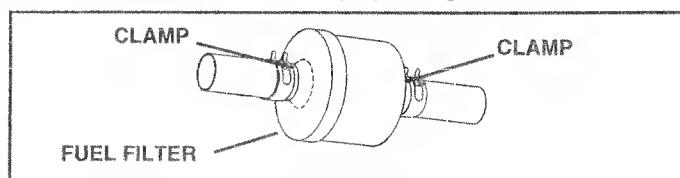


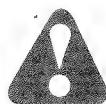
FIG. 20

CLEANING

- Clean engine, battery, seat, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.

We do not recommend using a garden hose to clean your tractor unless the electrical system, muffler, air filter and carburetor are covered to keep water out. Water in engine can result in a shortened engine life.

SERVICE AND ADJUSTMENTS



CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

- Depress clutch/brake pedal fully and set parking brake.
- Place gearshift lever in neutral (N) position.
- Place attachment clutch in "DISENGAGED" position.
- Turn ignition key "OFF" and remove key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

TRACTOR

TO REMOVE MOWER (See Fig. 21)

- Place attachment clutch in "DISENGAGED" position.
- Turn height adjustment knob to lowest setting.
- Lower mower to its lowest position.
- Remove retainer spring holding anti-swaybar to chassis bracket and disengage anti-swaybar from bracket.
- Remove retainer springs from suspension arms at deck and disengage arms from deck.
- Raise attachment lift to its highest position.
- Remove two retainer springs from each front link and remove links.
- Slide mower forward and remove belt from electric clutch pulley.
- Slide mower out from under right side of tractor.

IMPORTANT: IF AN ATTACHMENT OTHER THAN THE MOWER DECK IS TO BE MOUNTED ON THE TRACTOR, REMOVE THE FRONT LINKS.

TO INSTALL MOWER

Follow procedure described in "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual.

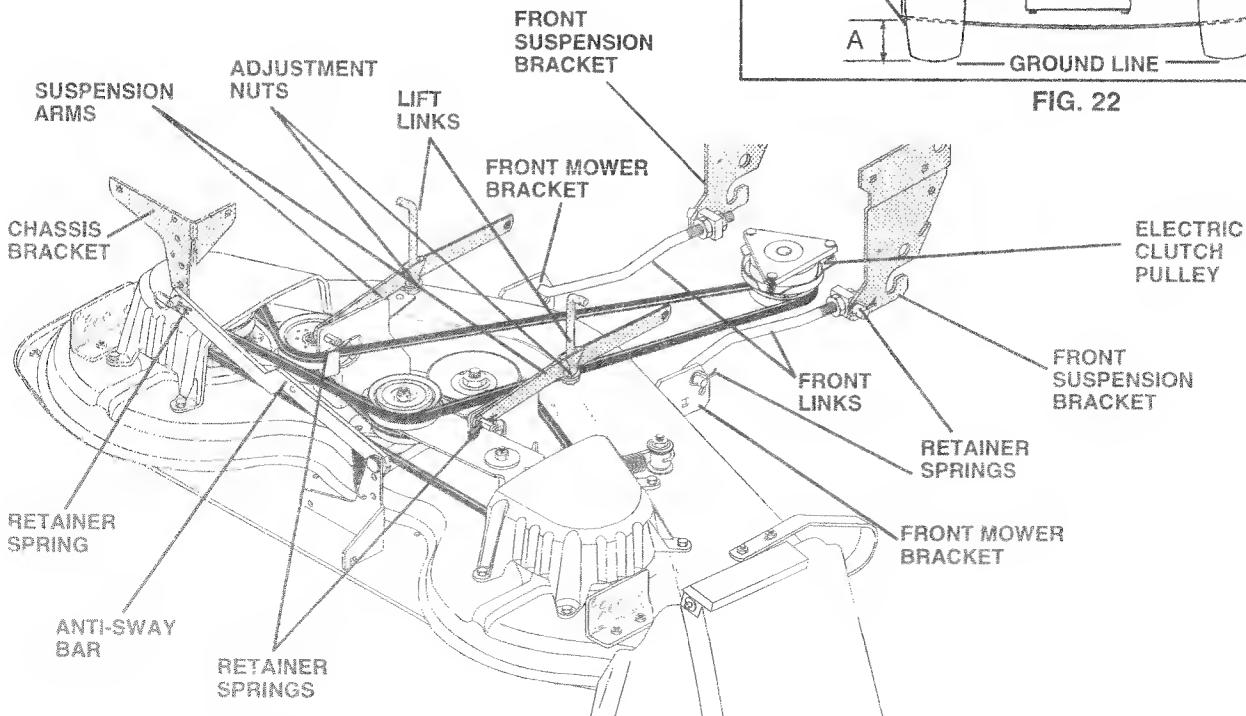


FIG. 21

TO LEVEL MOWER HOUSING

Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PRODUCT SPECIFICATIONS" on page 3 of this manual). If tires are over or underinflated, you will not properly adjust your mower.

SIDE-TO-SIDE ADJUSTMENT (See Figs. 21 and 22)

- Raise mower to its highest position.
- Measure height from bottom of deck curl to ground level at front corners of mower. Distance "A" should be the same.
- If distance "A" needs to be changed, make adjustment on one side of mower only.
- Raise one side of mower by tightening lift link adjustment nut on that side.
- Lower one side of mower by loosening lift link adjustment nut on that side.

NOTE: Each half turn of adjustment nut will change deck level about 3/16".

- Recheck level after adjusting.

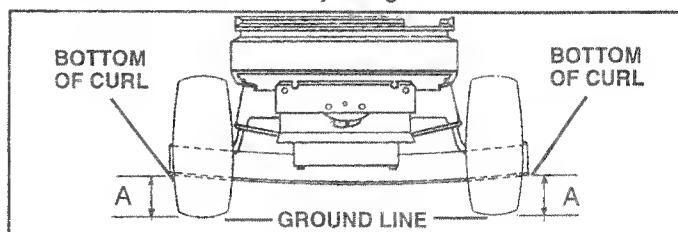


FIG. 22

SERVICE AND ADJUSTMENTS

FRONT-TO-BACK ADJUSTMENT (See Figs. 23 and 24)

IMPORTANT: DECK MUST BE LEVEL SIDE-TO-SIDE. IF THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/4" to 3/4" lower than the rear when the mower is in its highest position.

Check adjustment on right side of tractor. Measure distance "D" directly in front and behind the mandrel at bottom edge of mower housing as shown.

- Before making any necessary adjustments, check that both front links are equal in length. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.

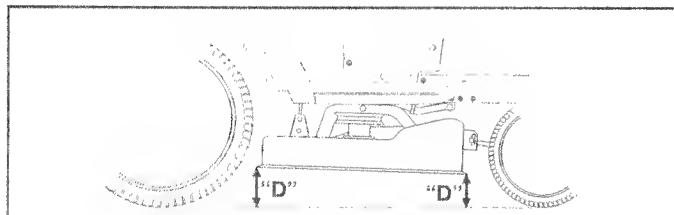


FIG. 23

BOTH FRONT LINKS SHOULD BE EQUAL IN LENGTH

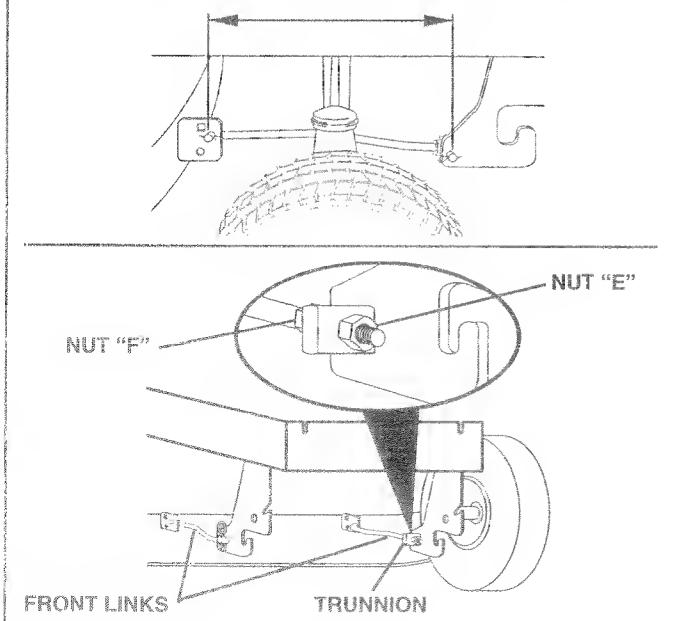


FIG. 24

TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 25) -

- Park tractor on a level surface. Engage parking brake.
- Remove four screws from L.H. mandrel cover and remove cover.
- Roll belt over the top of L.H. mandrel pulley.
- Remove belt from electric clutch pulley.
- Remove belt from idler pulleys.
- Remove any dirt or grass clippings which may have accumulated around mandrels and entire upper deck surface.
- Check primary idler arm and two idlers to see that they rotate freely.
- Be sure spring is securely hooked to primary idler arm and bolt in mower housing.

MOWER DRIVE BELT INSTALLATION (See Fig. 25) -

- Install belt in both idlers. Make sure belt is in both belt keepers at the idlers as shown.
- Install new belt onto electric clutch pulley.
- Roll belt into upper groove of L.H. mandrel pulley.
- Carefully check belt routing making sure belt is in the grooves correctly and inside belt keepers.
- Reassemble L.H. mandrel cover.

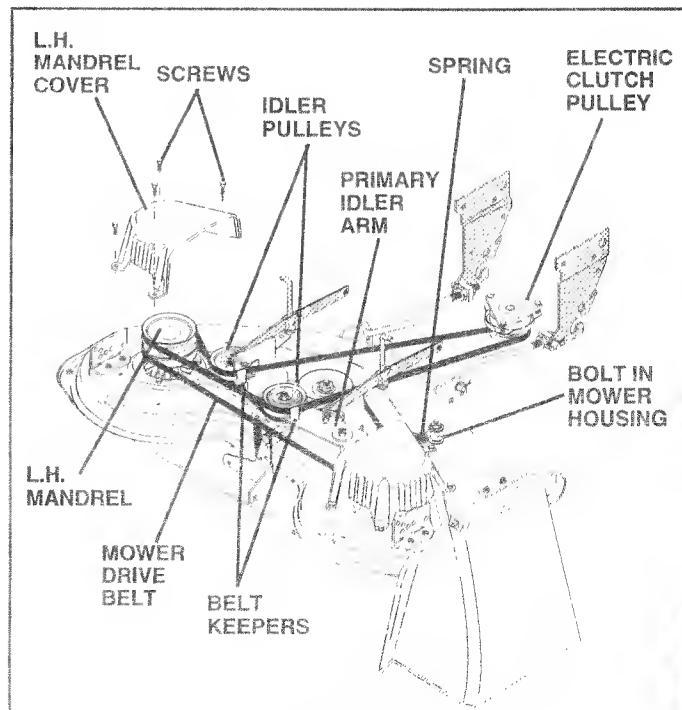


FIG. 25

SERVICE AND ADJUSTMENTS

TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 26)

Park the tractor on level surface. Engage parking brake.

- Remove mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).
- Remove mower (See "TO REMOVE MOWER" in this section of this manual).
- Remove four screws from R.H. mandrel cover and remove cover. Unhook spring from bolt on mower housing.
- Carefully roll belt off R.H. mandrel pulley.
- Remove belt from center mandrel pulley, idler pulley, and L.H. mandrel pulley.
- Remove any dirt or grass which may have accumulated around mandrels and entire upper deck surface.
- Check secondary idler arm and idler to see that they rotate freely.
- Be sure spring is hooked in secondary idler arm and sway-bar bracket.
- Install new belt in lower groove of L.H. mandrel pulley, idler pulley, and center mandrel pulley as shown.
- Roll belt over R.H. mandrel pulley. Make sure belt is in all grooves properly.
- Reconnect spring to bolt in mower housing and reinstall R.H. mandrel cover.
- Reinstall mower to tractor (See "TO INSTALL MOWER" in the Assembly section of this manual).
- Reassemble mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).

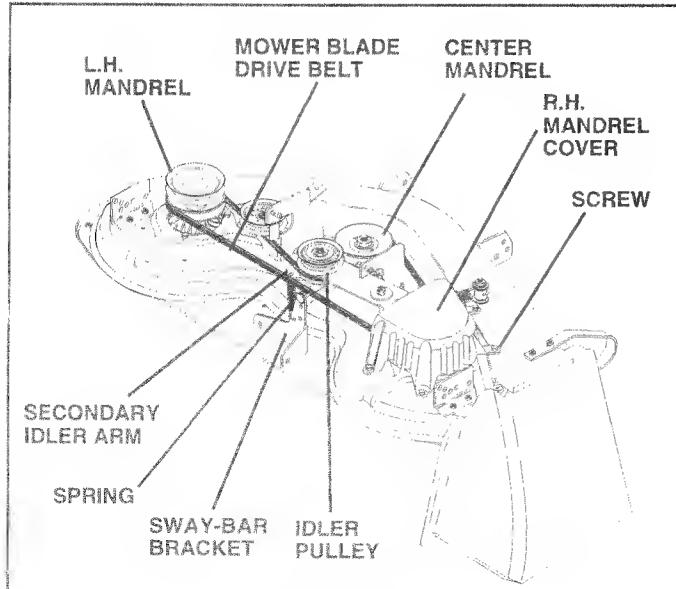


FIG. 26

TO ADJUST ATTACHMENT CLUTCH (See Fig. 27)

The electric clutch should provide years of service. The clutch has a built-in brake that stops the pulley within 5 seconds. Eventually, the internal brake will wear which may cause the mower blades to not engage, or, to not stop as required. Adjustments should be made by an authorized service technician.

- Make sure attachment clutch and ignition switches are in "OFF" position.
- Adjust the three nylon locknuts until space between clutch plate and rotor measures .012" at all three slot locations cut in the side of brake plate.

NOTE: After installing a new electric clutch, run tractor at full throttle and engage and disengage electric clutch 10 cycles to wear in clutch plate.

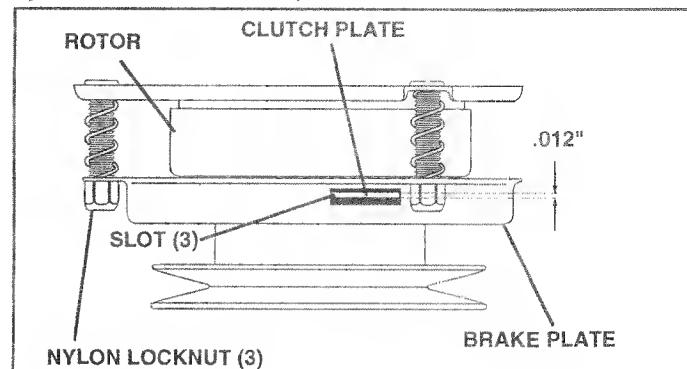


FIG. 27

TO ADJUST BRAKE (See Fig. 28)

Your tractor is equipped with an adjustable brake system which is mounted on the right side of the transaxle.

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted.

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-1/2", loosen jam nut and turn nut "A" until distance becomes 1-1/2". Retighten jam nut against nut "A".
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center.

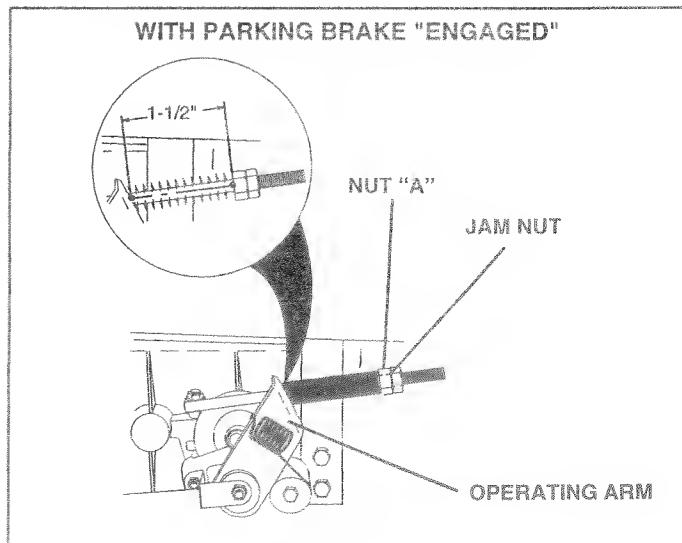


FIG. 28

SERVICE AND ADJUSTMENTS

TO REPLACE MOTION DRIVE BELT (See Fig. 29)

Park the tractor on level surface. Engage parking brake. For assistance, there is a belt installation guide decal on bottom side of left footrest.

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Disconnect clutch wire harness.
- Remove clutch locator.
- Remove upper belt keeper.
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Remove belt upwards from transaxle pulley by deflecting belt keepers.
- Pull belt toward front of tractor and remove downwards from around electric clutch.
- Install new belt by reversing above procedure.

IMPORTANT: MAKE SURE UPPER BELT KEEPER IS POSITIONED PROPERLY BETWEEN LOCATOR TABS AND ELECTRIC CLUTCH WIRE CONNECTION IS SECURE.

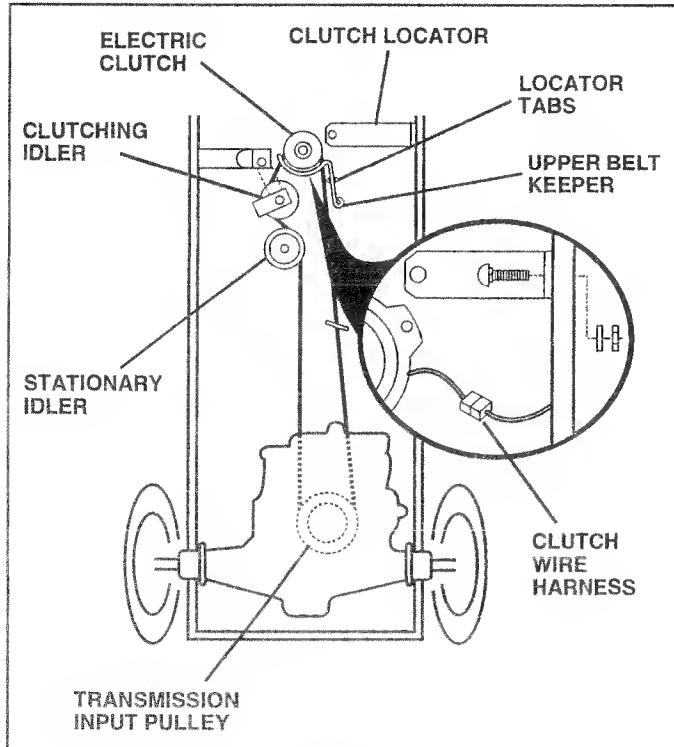


FIG. 29

TRANSAXLE SHIFTER LINKAGE AND ADJUSTMENT (See Figs. 30 and 31)

The transaxle should be in neutral when the gear shift lever is in the neutral (N) (lock gate) position. The adjustment is preset at the factory; however, if adjustment is needed, proceed as follows:

- Make sure transaxle is in neutral (N).
- Loosen two locknuts on tie rod.
- Turn center rod until gearshift lever falls into neutral lock gate on fender console.
- Tighten locknuts securely.

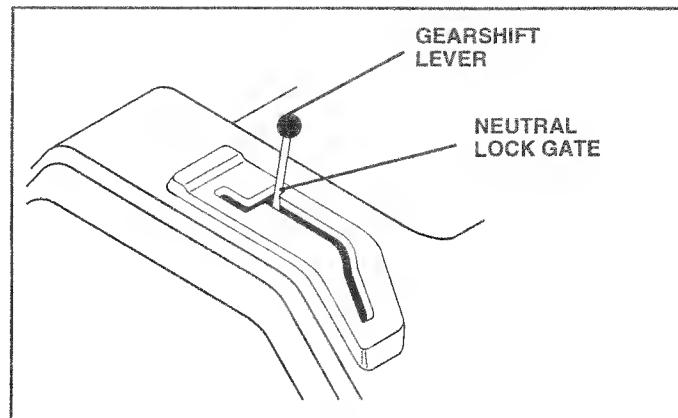


FIG. 30

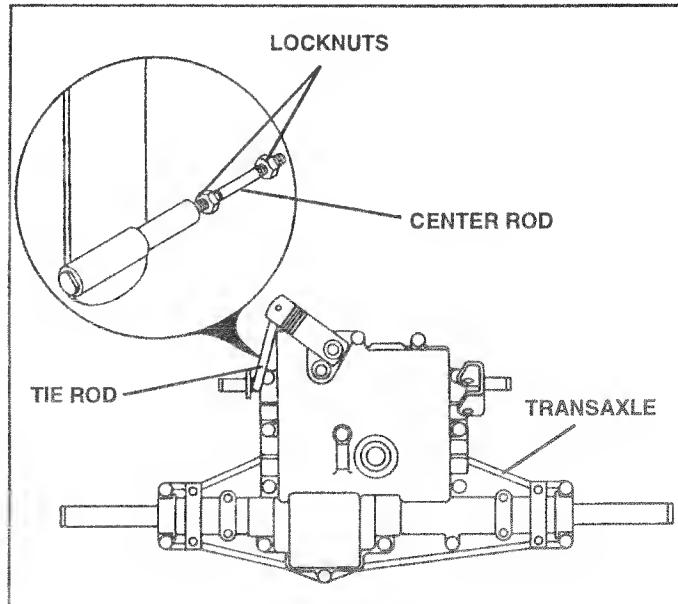


FIG. 31

SERVICE AND ADJUSTMENTS

TO ADJUST STEERING WHEEL ALIGNMENT

If steering wheel crossbars are not horizontal (left to right) when wheels are positioned straight forward, remove steering wheel and reassemble per instructions in the Assembly section of this manual.

FRONT WHEEL TOE-IN/CAMBER

The front wheel toe-in and camber are not adjustable on your tractor. If damage has occurred to affect the front wheel toe-in or camber, contact your nearest authorized service center.

TO REMOVE WHEEL FOR REPAIRS

(See Fig. 32)

- Block up axle securely.
- Remove wheel cover, retaining ring and washers to allow wheel removal (rear wheel contains a square key - Do not lose).
- Repair tire and reassemble.
- On rear wheels only: align grooves in rear wheel hub and axle. Insert square key.
- Replace washers and snap retaining ring securely in axle groove.
- Replace wheel cover.

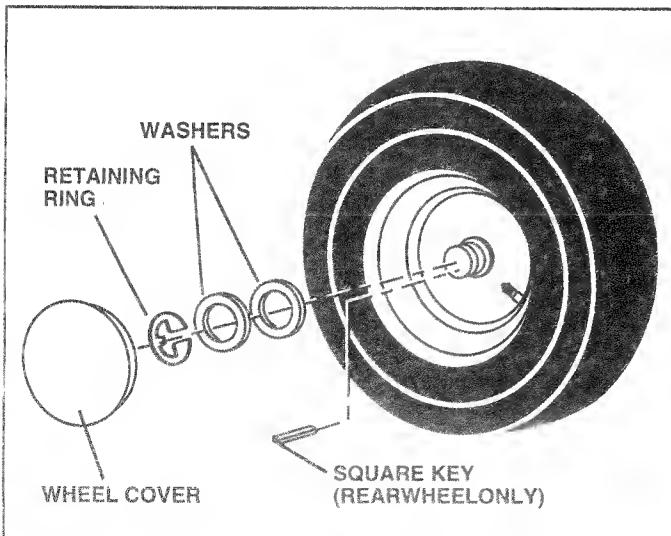


FIG. 32

TO START ENGINE WITH A WEAK BATTERY (See Fig. 33)



CAUTION: Lead-acid batteries generate explosive gases. Keep sparks, flame and smoking materials away from batteries. Always wear eye protection when around batteries.

If your battery is too weak to start the engine, it should be recharged. If "jumper cables" are used for emergency starting, follow this procedure:

IMPORTANT: YOUR TRACTOR IS EQUIPPED WITH A 12 VOLT NEGATIVE GROUNDED SYSTEM. THE OTHER VEHICLE MUST ALSO BE A 12 VOLT NEGATIVE GROUNDED SYSTEM. DO NOT USE YOUR TRACTOR BATTERY TO START OTHER VEHICLES.

TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGATIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to a good CHASSIS GROUND, away from fuel tank and battery.

TO REMOVE CABLES, REVERSE ORDER -

- BLACK cable first from chassis and then from the fully charged battery.
- RED cable last from both batteries.

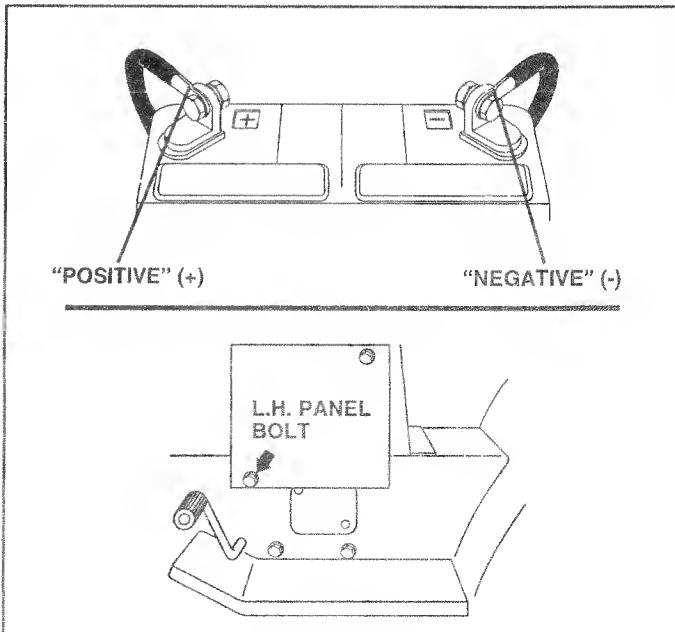


FIG. 33

SERVICE AND ADJUSTMENTS

TO REPLACE FUSE

Replace with 30 amp automotive-type plug-in fuse. The fuse holder is located in the engine compartment, directly in front of the dash.

TO REPLACE HEADLIGHT BULB

- Raise hood.
- Pull bulb holder out of the hole in the backside of the grill.
- Replace bulb in holder and push bulb holder securely back into the hole in the backside of the grill.
- Close hood.

INTERLOCKS AND RELAYS

Loose or damaged wiring may cause your tractor to run poorly, stop running or prevent it from starting.

- Check wiring. See the electrical wiring diagram in the Repair Parts section of this manual.

TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 34)

- Lift hood. Disconnect headlight wiring connection.
- Remove wingnut at rear of each side panel.
- Remove retainer springs from hood pivot brackets.
- Pivot hood and side panel forward and lift off tractor.
- To replace, reverse above procedure.

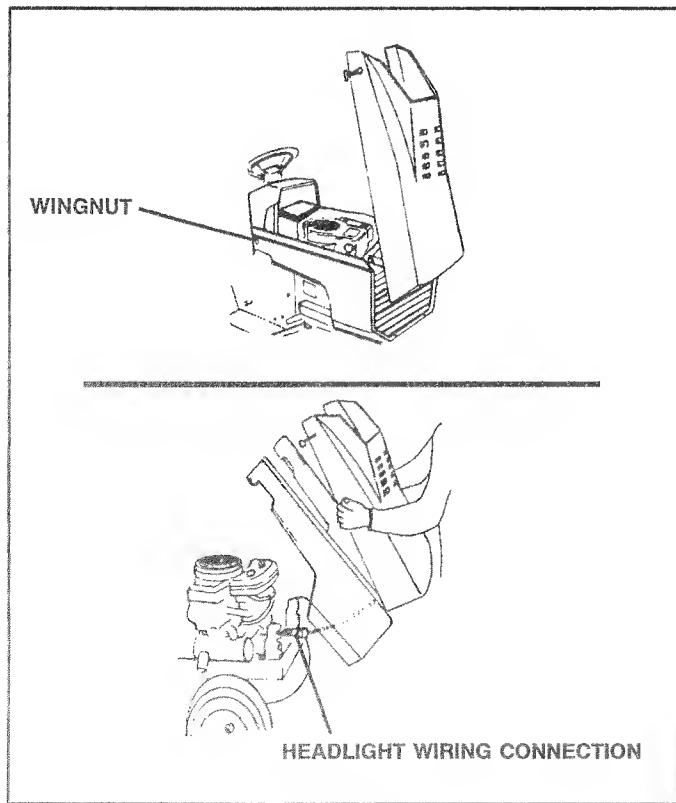


FIG. 34

ENGINE

TO ADJUST THROTTLE CONTROL CABLE (See Figs. 35 & 36)

The throttle control has been preset at the factory and adjustment should not be necessary. Check adjustment as described below before loosening cable. If adjustment is necessary, proceed as follows:

- With engine not running, move throttle control lever to fast (↗) position.
- Check that speed control lever is against stop screw. If it is not, loosen casing clamp screw and pull throttle cable until lever is against screw. Tighten clamp screw securely.

TO ADJUST CARBURETOR (See Fig. 37)

The carburetor has been present at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows:

In general, turning the adjusting needles **in** (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the adjusting needles **out** (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

IMPORTANT: DAMAGE TO THE NEEDLES AND THE SEATS IN CARBURETOR MAY RESULT IF SCREW IS TURNED IN TOO TIGHT.

PRELIMINARY SETTING -

- Be sure you have a clean air filter, and the throttle control cable is adjusted properly (see above).
- With engine off turn idle fuel adjusting needle **in** (clockwise) closing it finger tight and then turn **out** (counterclockwise) 1-1/4 turns.
- Turn main fuel adjusting needle **in** (clockwise) closing finger tight and then turn **out** (counterclockwise) 1 turn.

FINAL SETTING -

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/motion control lever in neutral (N) position.
- With throttle control lever in fast (↗) position, turn main fuel adjusting needle **in** (clockwise) until engine begins to die then turn **out** (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- **Idle speed setting** - With throttle control lever in slow (↘) position, engine should idle at 1400 RPM. If engine idles too slow or fast, turn idle speed adjusting screw in or out until correct idle is attained.
- **Idle fuel needle setting** - With throttle control lever in slow (↘) position, turn idle fuel adjusting needle **in** (clockwise) until engine begins to die and then turn **out** (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- Recheck idle speed. Readjust if necessary.

SERVICE AND ADJUSTMENTS

ACCELERATION TEST -

- Move throttle control lever from slow (→) to fast (←) position. If engine hesitates or dies, turn idle mixture screw **out** (counterclockwise) 1/8 turn. Repeat test and continue to adjust, if necessary, until engine accelerates smoothly.

High speed stop is factory adjusted. Do not adjust—damage may result.

IMPORTANT: NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER/DEPARTMENT, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

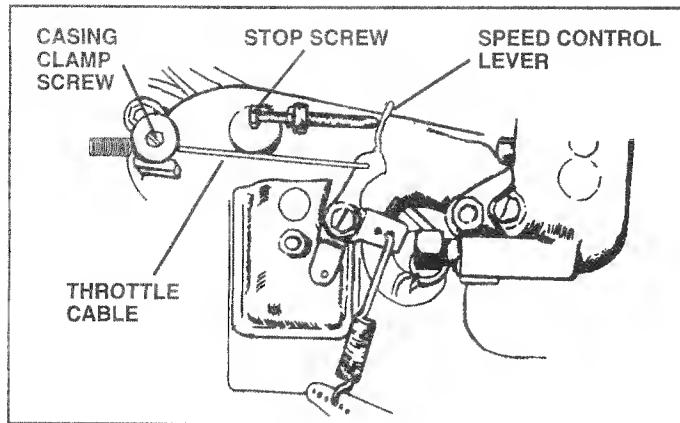


FIG. 35

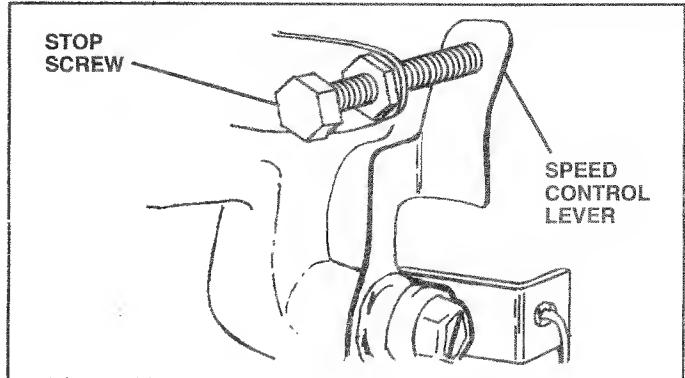


FIG. 36

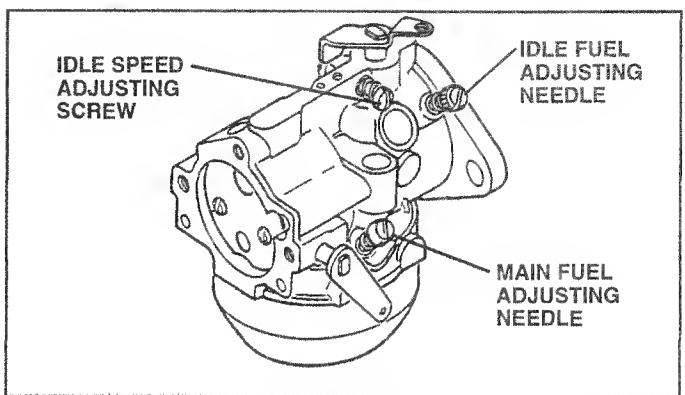


FIG. 37

STORAGE

Immediately prepare your tractor for storage at the end of the season or if the tractor will not be used for 30 days or more.



CAUTION: Never store the tractor with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

TRACTOR

Remove mower from tractor for winter storage. When mower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- Clean entire tractor (See "CLEANING" in the Customer Responsibilities section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- Lubricate as shown in the Customer Responsibilities section of this manual.
- Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

BATTERY

- Fully charge the battery for storage.
- After a period of time in storage, battery may require recharging.
- To help prevent corrosion and power leakage during long periods of storage, battery cables should be disconnected and battery cleaned thoroughly (see "TO CLEAN BATTERY AND TERMINALS" in the Customer Responsibilities section of this manual).
- After cleaning, leave cables disconnected and place cables where they cannot come in contact with battery terminals.
- Be sure battery drain tube is securely attached.
- If battery is removed from tractor for storage, do not store battery directly on concrete or damp surfaces.

ENGINE

FUEL SYSTEM

IMPORTANT: IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN ESSENTIAL FUEL SYSTEM PARTS SUCH AS CARBURETOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE. ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

- Drain the fuel tank.
- Start the engine and let it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

NOTE: Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not drain the gas tank and carburetor if using fuel stabilizer.

ENGINE OIL

Drain oil (with engine warm) and replace with clean engine oil. (See "ENGINE" in the Customer Responsibilities section of this manual).

CYLINDERS

- Remove spark plug(s).
- Pour one ounce of oil through spark plug hole(s) into cylinder(s).
- Turn ignition key to "START" position for a few seconds to distribute oil.
- Replace with new spark plug(s).

OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your tractor indoors and cover it to give protection from dust and dirt.
- Cover your tractor with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe which allows condensation to form and will cause your tractor to rust.

IMPORTANT: NEVER COVER TRACTOR WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.

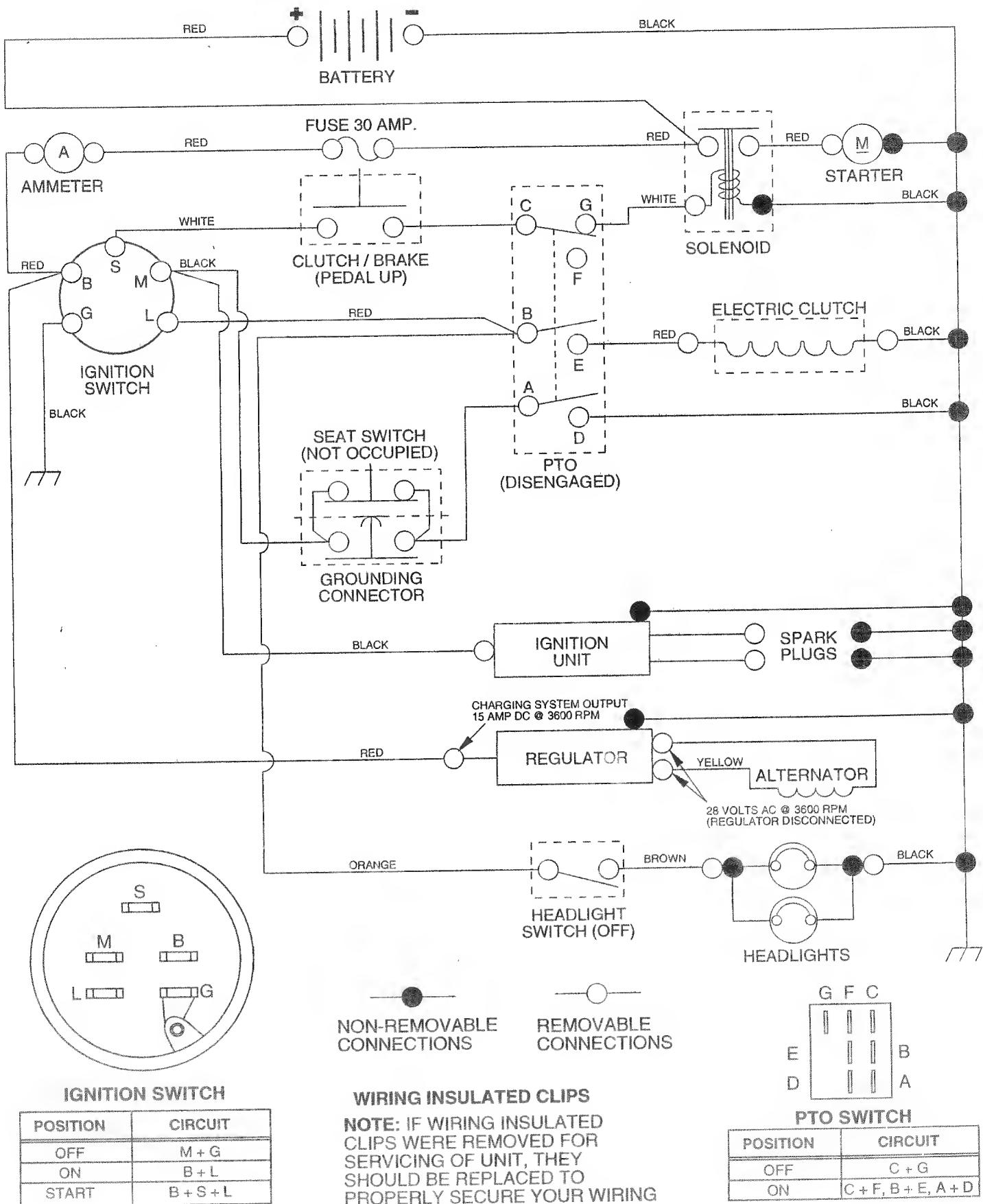
TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
Will not start	<ol style="list-style-type: none"> 1. Out of fuel. 2. Engine not "CHOKED" properly. 3. Engine flooded. 4. Bad spark plug. 5. Dirty air filter. 6. Dirty fuel filter. 7. Water in fuel. 8. Loose or damaged wiring. 9. Carburetor out of adjustment. 10. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Fill fuel tank. 2. See "TO START ENGINE" in Operation section. 3. Wait several minutes before attempting to start. 4. Replace spark plug. 5. Clean/replace air filter. 6. Replace fuel filter. 7. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 8. Check all wiring. 9. Contact an authorized service center/department. 10. Contact an authorized service center/department.
Hard to start	<ol style="list-style-type: none"> 1. Dirty air filter. 2. Bad spark plug. 3. Weak or dead battery. 4. Dirty fuel filter. 5. Stale or dirty fuel. 6. Loose or damaged wiring. 7. Carburetor out of adjustment. 8. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Clean/replace air filter. 2. Replace spark plug. 3. Recharge or replace battery. 4. Replace fuel filter. 5. Drain fuel tank and refill with fresh gasoline. 6. Check all wiring. 7. Contact an authorized service center/department. 8. Contact an authorized service center/department.
Engine will not turn over	<ol style="list-style-type: none"> 1. Clutch/brake pedal not depressed. 2. Attachment clutch is engaged. 3. Weak or dead battery. 4. Blown fuse. 5. Corroded battery terminals. 6. Loose or damaged wiring. 7. Faulty ignition switch. 8. Faulty solenoid or starter. 9. Faulty operator presence switch(es). 	<ol style="list-style-type: none"> 1. Depress clutch/brake pedal. 2. Disengage attachment clutch. 3. Recharge or replace battery. 4. Replace fuse. 5. Clean battery terminals. 6. Check all wiring. 7. Check/replace ignition switch. 8. Check/replace solenoid or starter. 9. Contact an authorized service center/department.
Engine clicks but will not start	<ol style="list-style-type: none"> 1. Weak or dead battery. 2. Corroded battery terminals. 3. Loose or damaged wiring. 4. Faulty solenoid or starter. 	<ol style="list-style-type: none"> 1. Recharge or replace battery. 2. Clean battery terminals. 3. Check all wiring. 4. Check/replace solenoid or starter.
Loss of power	<ol style="list-style-type: none"> 1. Cutting too much grass/too fast. 2. Throttle in "CHOKE" position. 3. Build-up of grass, leaves and trash under mower. 4. Dirty air filter. 5. Low oil level/dirty oil. 6. Faulty spark plug. 7. Dirty fuel filter. 8. Stale or dirty fuel. 9. Water in fuel. 10. Spark plug wire loose. 11. Dirty engine air screen/fins. 12. Dirty/clogged muffler. 13. Loose or damaged wiring. 14. Carburetor out of adjustment. 15. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Set in "Higher Cut" position/reduce speed. 2. Adjust throttle control. 3. Clean underside of mower housing. 4. Clean/replace air filter. 5. Check oil level/change oil. 6. Clean and regap or change spark plug. 7. Replace fuel filter. 8. Drain fuel tank and refill with fresh gasoline. 9. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 10. Connect and tighten spark plug wire. 11. Clean engine air screen/fins. 12. Clean/replace muffler. 13. Check all wiring. 14. Contact an authorized service center/department. 15. Contact an authorized service center/department.
Excessive vibration	<ol style="list-style-type: none"> 1. Worn, bent or loose blade. 2. Bent blade mandrel. 3. Loose/damaged part(s). 	<ol style="list-style-type: none"> 1. Replace blade. Tighten blade bolt. 2. Replace blade mandrel. 3. Tighten loose part(s). Replace damaged parts.

TROUBLESHOOTING POINTS

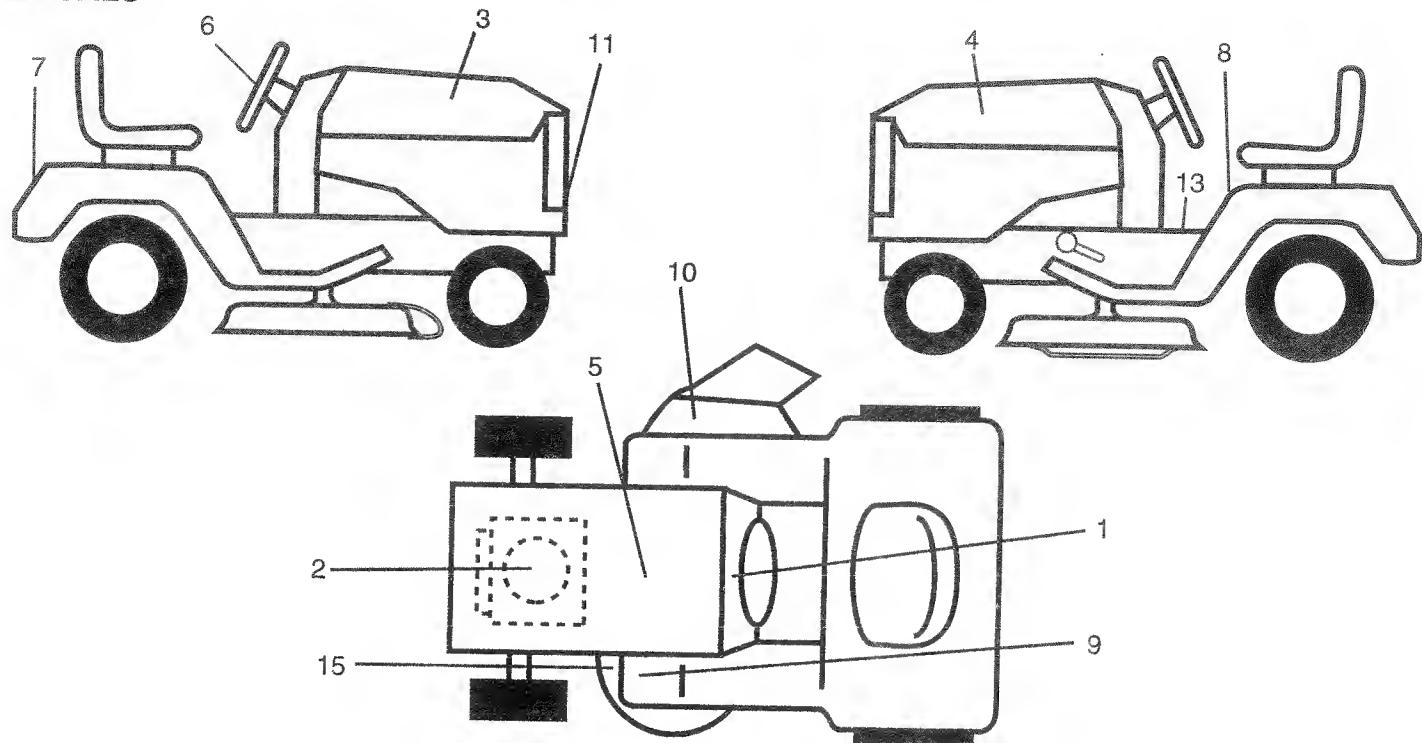
PROBLEM	CAUSE	CORRECTION
Engine continues to run when operator leaves seat with attachment clutch engaged	1. Faulty operator-safety presence control system.	1. Check wiring, switches and connections. If not corrected, contact an authorized service center/department.
Poor cut - uneven	1. Worn, bent or loose blade. 2. Mower deck not level. 3. Buildup of grass, leaves, and trash under mower. 4. Bent blade mandrel. 5. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.	1. Replace blade. Tighten blade bolt. 2. Level mower deck. 3. Clean underside of mower housing. 4. Replace blade mandrel. 5. Clean around mandrels to open vent holes.
Mower blades will not rotate	1. Obstruction in clutch mechanism. 2. Worn/damaged mower drive belt. 3. Frozen idler pulley. 4. Frozen blade mandrel.	1. Remove obstruction. 2. Replace mower drive belt. 3. Replace idler pulley. 4. Replace blade mandrel.
Poor grass discharge	1. Engine speed too slow. 2. Travel speed too fast. 3. Wet grass. 4. Mower deck not level. 5. Low/uneven tire air pressure. 6. Worn, bent or loose blade. 7. Buildup of grass, leaves and trash under mower. 8. Mower drive belt worn. 9. Blades improperly installed. 10. Improper blades used. 11. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.	1. Place throttle control in "FAST" position. 2. Shift to slower speed. 3. Allow grass to dry before mowing. 4. Level mower deck. 5. Check tires for proper air pressure. 6. Replace/sharpen blade. Tighten blade bolt. 7. Clean underside of mower housing. 8. Replace mower drive belt. 9. Reininstall blades sharp edge down. 10. Replace with blades listed in this manual. 11. Clean around mandrels to open vent holes.
Headlight(s) not working (if so equipped)	1. Switch is "OFF". 2. Bulb(s) burned out. 3. Faulty light switch. 4. Loose or damaged wiring. 5. Blown fuse.	1. Turn switch "ON". 2. Replace bulb(s). 3. Check/replace light switch. 4. Check wiring and connections. 5. Replace fuse.
Battery will not charge	1. Bad battery cell(s). 2. Poor cable connections. 3. Faulty regulator (if so equipped). 4. Faulty alternator.	1. Replace battery. 2. Check/clean all connections. 3. Replace regulator. 4. Replace alternator.
Loss of drive	1. Freewheel control in "disengaged" position. 2. Motion drive belt worn, damaged, or broken.	1. Place freewheel control in "engaged" position. 2. Replace motion drive belt.
Engine "backfires" when turning engine "OFF"	1. Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	1. Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51
SCHEMATIC



REPAIR PARTS

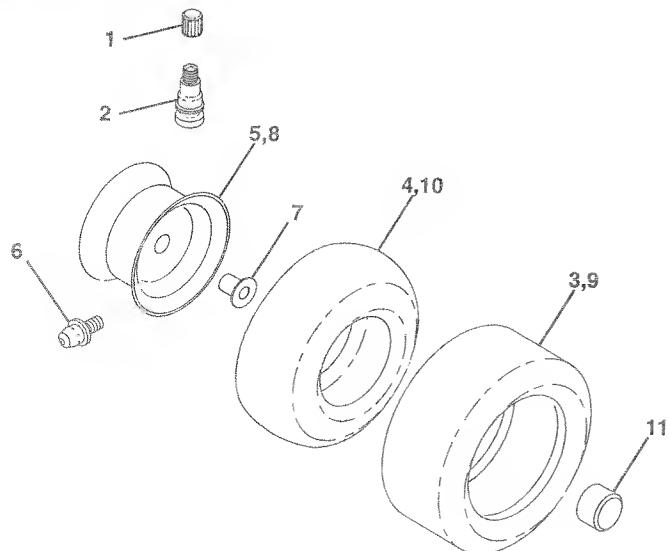
16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51
DECALS



KEY NO.	PART NO.	DESCRIPTION
1	532138956	Decal Instruction Dash Eng/fr
2	532132506	Decal HP Engine
3	532142782	Decal Hood RH
4	532142783	Decal Hood LH
5	532121549	Decal Caution Battery Fr/ger
6	532137963	Decal Insert Steering Wheel
7	532133900	Decal Fender
8	532133795	Decal Caution Fender Eng/fr
9	532101892	Decal Clutch/brake Eng/fr
10	532137259	Decal Warning MULT-LANGUAGE

KEY NO.	PART NO.	DESCRIPTION
11	532127630	Decal Grille
13	532140837	Decal Brake Parking Saddle
15	532139346	Decal V-Belt Sch 44/50
-	532138311	Decal Lift Handle(Lift Handle)
-	532143845	Manual Owners, English
-	532143846	Manual Owners, French
Available accessories not included with tractor:		
-	LSB42	Snow Blower
-	LC05	33 lb. wheel weights (Pair)
-	LC06	Tire Chains

WHEELS & TIRES



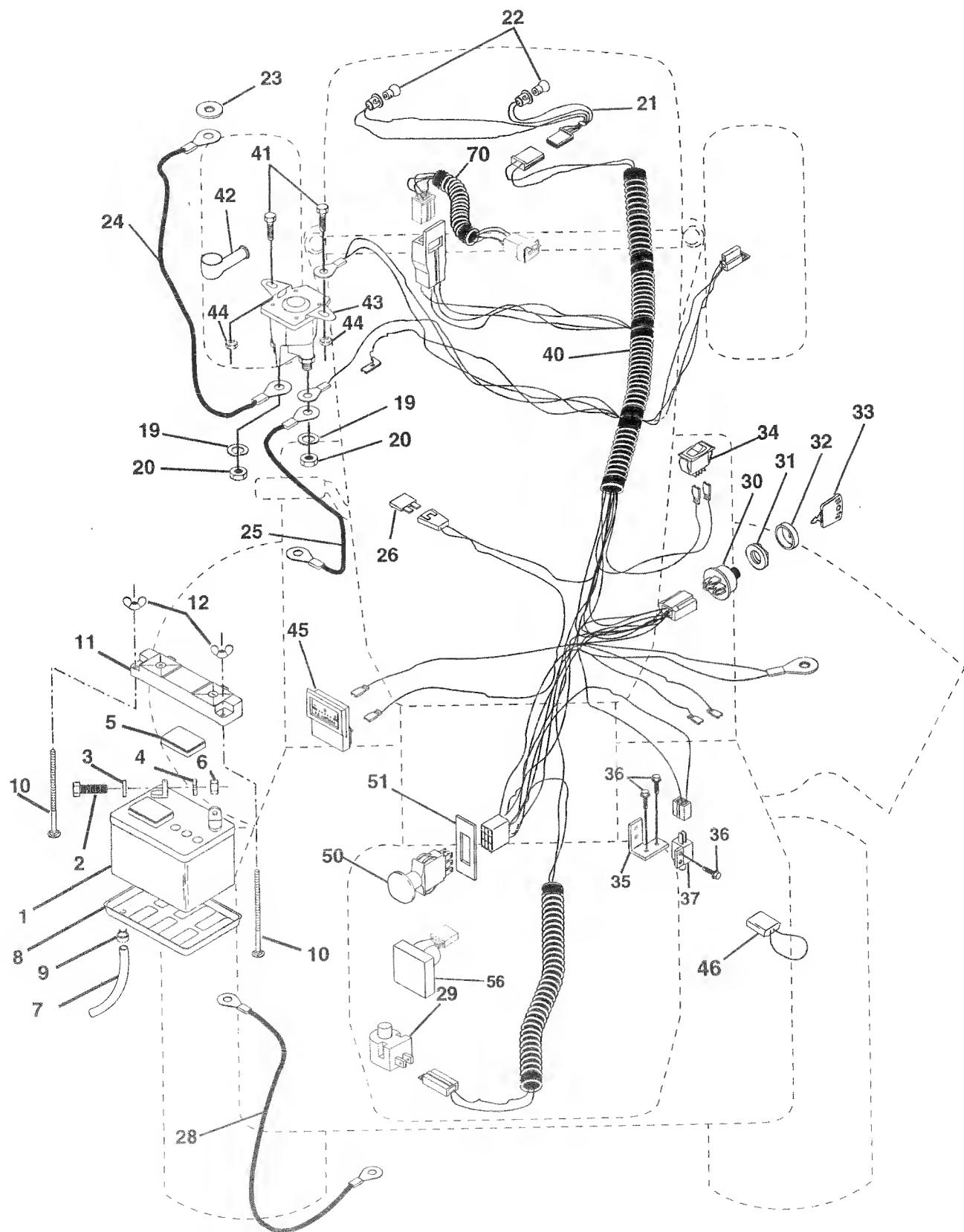
KEY NO.	PART NO.	DESCRIPTION
1	532059192	Cap Valve Tire
2	532065139	Stem Valve
3	532106222	Tire F Ts 15 X 6 0 - 6 Service
4	532059904	Tube Front (Service Item Only)
5	532138337	Rim Asm 8" rear Silver Service
6	532124957	Fitting Grease (Front Wheel Only)
7	532124959	Bearing Flange (Front Wheel Only)
8	532138336	Rim Asm 6" front Silver Service
9	532122082	Tire R Ts 20 10 C Service
10	532124926	Tube Rear (Service Item Only)
11	532104757	Cap Hub Axle

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51

ELECTRICAL



REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51 ELECTRICAL

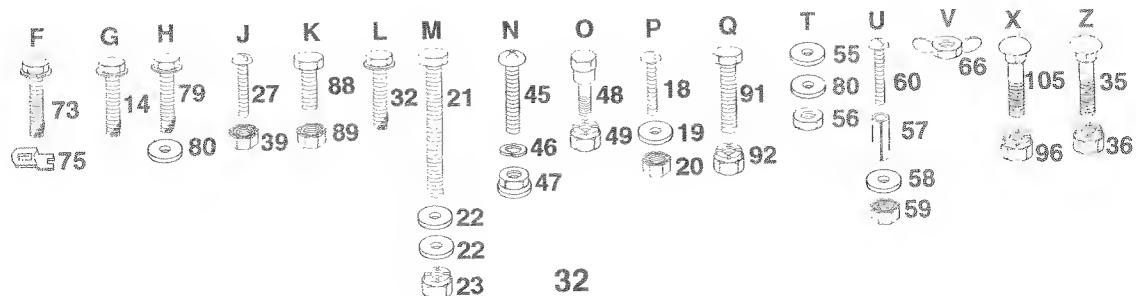
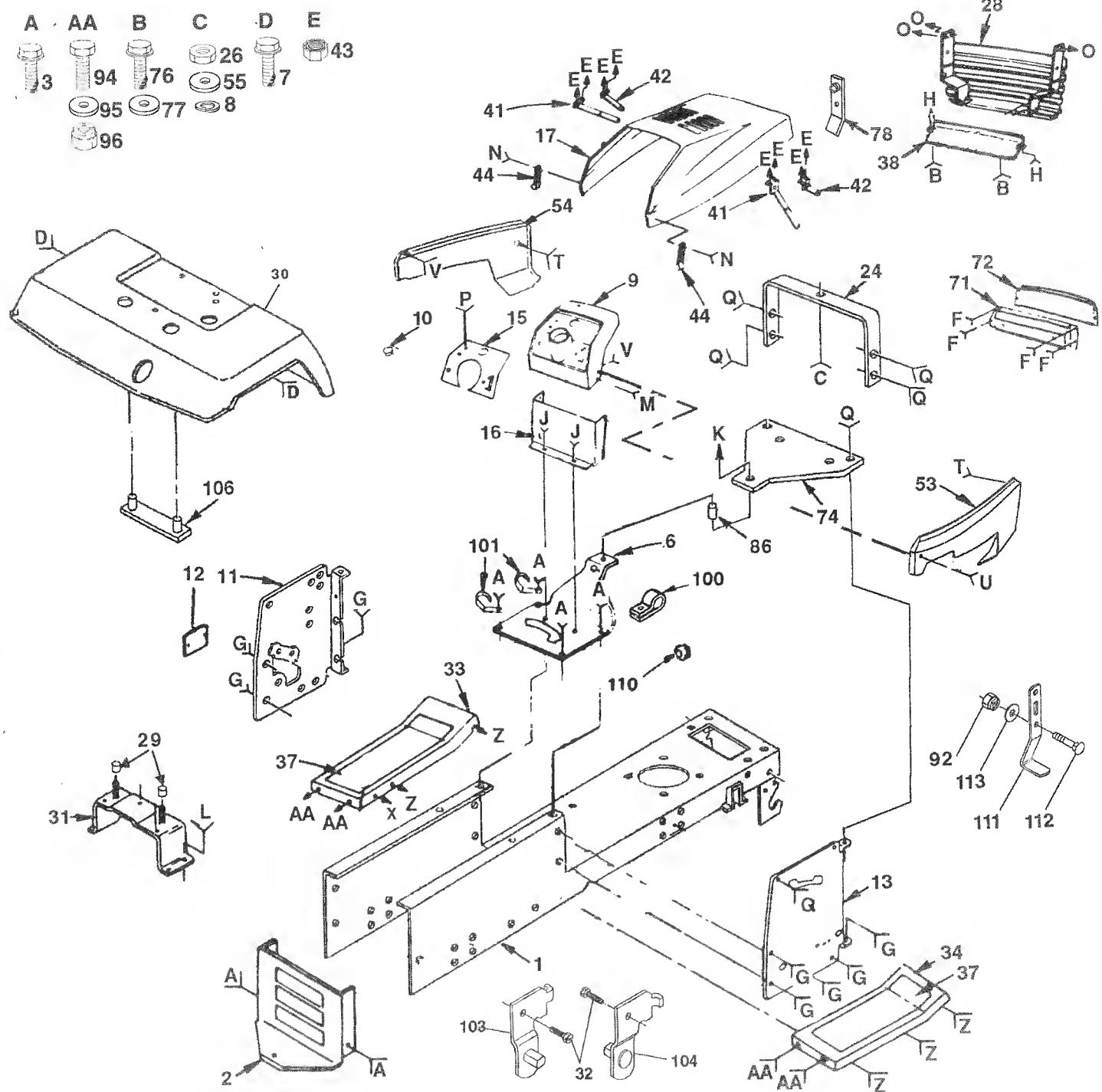
KEY NO.	PART NO.	DESCRIPTION
1	532121537	Battery
2	874760412	Bolt, Hex Head 1/4-20 x 3/4
3	819091016	Washer 9/32 x 5/8 x 16 Gauge
4	810040400	Washer, Lock 1/4
5	532121264	Caps, Battery
6	873220400	Nut, Hex 1/4-20
7	532007697	Tube, Tray, Battery
8	532124886	Tray, Battery
9	532109596	Clamp, Hose
10	872240460	Bolt, Carriage 1/4-20 x 7-1/2
11	532102476	Guard, Terminal
12	532123198	Nut, Wing 1/4-20
19	810090400	Washer, Lock 1/4
20	873350400	Nut, Hex, Jam 1/4-20
21	532136850	Harness, Socket, Light (Includes Key #11)
22	532004152	Bulb, Light
23	811150400	Washer, Lock, Internal Tooth 1/4
24	532124770	Cable, Battery (2)
25	532124780	Cable Starter 6 Ga. 11" Red
26	532108824	Fuse
28	532124773	Cable, Battery
29	532121305	Switch, Plunger
30	532140399	Switch, Ignition
31	532140400	Nut, Ignition
32	532141226	Bezel, Ignition
33	532140401	Key, Molded
34	532110712	Switch, Light
35	532108236	Bracket Switch Interlock
36	817021008	Screw, Hex Tap #10-24 UNC
37	532104445	Switch, Clutch, Interlock
40	532140420	Harness, Ignition
41	871110408	Bolt, Hex 1/4-20 x 1/2 Grade 5
42	532131563	Cover, Terminal
43	532138406	Solenoid
44	873640400	Nut, Hex, Keps 1/4-20
45	532122822	Ammeter Rectangular
46	532141940	Protection Wire Loop
50	532140404	Switch, P.T.O.
51	532140405	Ring, Retainer PTO
70	532140427	Harness Eng. Koh. Tw 18 AR

NOTE: All component dimensions given in U.S. inches.

1 inch = 25.4 mm

REPAIR PARTS

**16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51
CHASSIS AND ENCLOSURES**



REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51 CHASSIS AND ENCLOSURES

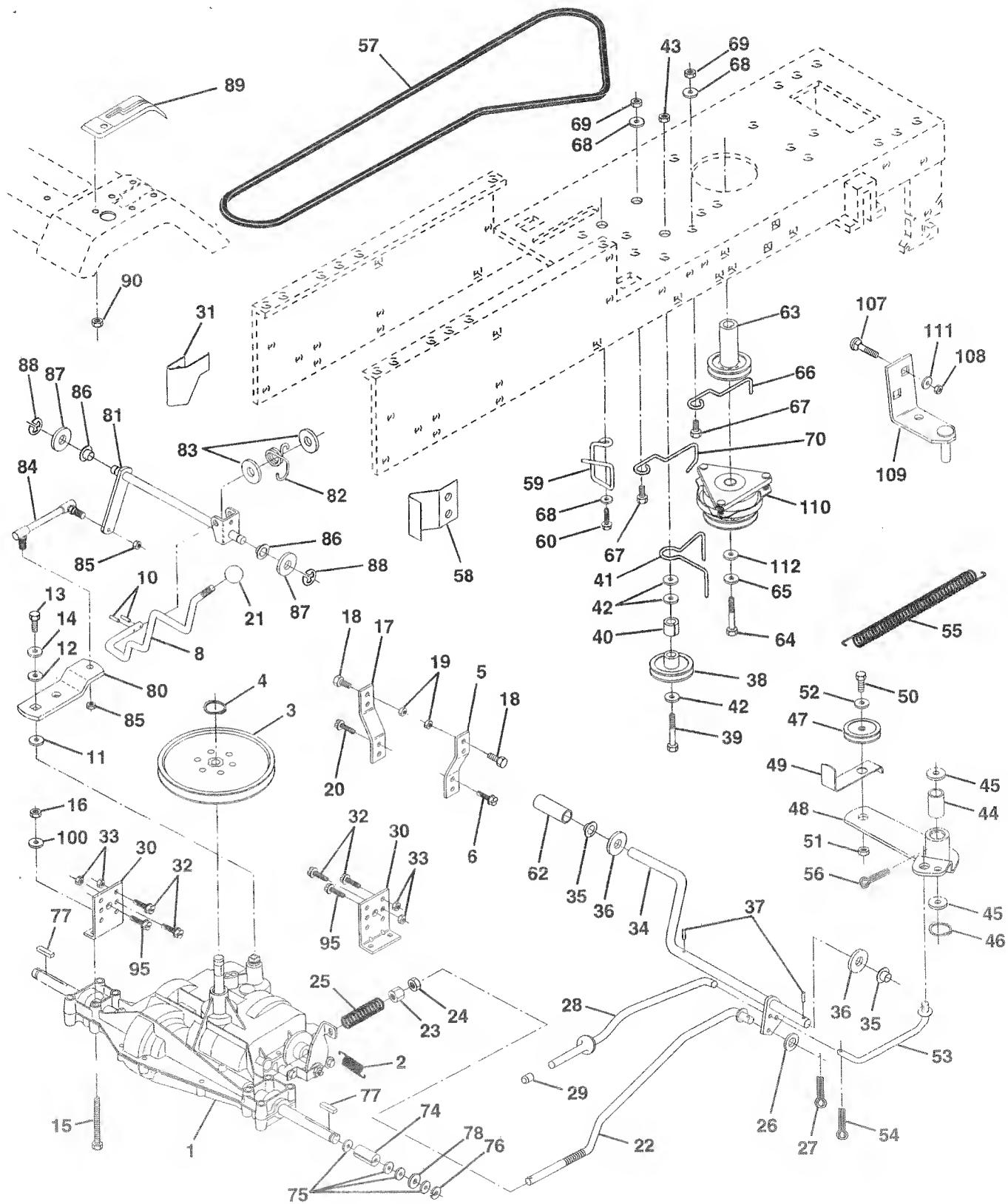
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532140341	Chassis Weldment 12 ga 38/42	47	532125004	Nut Weld .327/.304 #10 - 24
2	532140356	Drawbar Stretch	48	532123481	Bolt, Shoulder 1/4 - 20 UNC
3	817490612	Screw Thdrol 3/8 - 16 x 3/4 Ty-TT	49	873680400	Nut Crownlock 1/4 - 20 UNC
6	532127543	Saddle Slkscr	53	532144526	Panel Pnt Rh Side
7	817490608	Screw Thdrol 3/8 - 16 x Ty-TT	54	532144525	Panel Pnt Lh Side
8	810040400	Washer Lock Hvy. Helical 1/4	55	819091216	Washer 9/32 x 3/4 x 16 Ga
9	532140398	Dash Black Yard Pro	56	873220400	Nut Fin Hex 1/4 - 20 Unc
10	532125085	Plug Dash Blk 5009 Dia. E. Lift	57	532007206	Spacer Split #10 x 3/4 Cad/Zin
11	532136967	Panel Pnt Dash Lh	58	819070818	Washer 7/32 x 1/2 x 18 Ga
12	532121794	Cover Access Black Square	59	873731000	Nut Keps #10 - 24 Unc
13	532136970	Panel Pnt Dash Rh	60	874981020	Screw Mach Cr Pan #10 - 24 x 1-1/4
14	817490612	Screw Thdrol 3/8 - 16 x 3/4 Ty-TT	66	532123198	Nut Plastic Locking Wng 1/4 - 20
15	532142122	Plate Silkscreened Dash	71	532124939	Bezel Asm. Pnt
16	532104805	Dash Pnt Lower	72	532106395	Lens Headlight Bar Clear
17	532144524	Hood Pnt	73	817211010	Screw Hex Whd Tap #10-16 x 5/8
18	874180512	Screw Mach Trhd 5/16 - 18 UNC x 3/4	74	532140181	Plate Pnt Sprt Battery (blk)
19	819111116	Washer 11/32 x 11/16 x 16 Ga	75	532104755	Fastener "J"
20	873510500	Nut Keps 5/16 - 18 UNC	76	817490512	Screw Thdrol. 5/16-18 x 3/4
21	874780620	Bolt Fin Hex 3/8 - 16 UNC x 1-1/4	77	819131210	Washer 13/32 x 3/4 x 10 Ga.
22	819131312	Washer 13/32 x 13/16 x 12 Ga	78	532132644	Bracket Grille Galv
23	873800600	Nut Lock 3/8 - 16 Unc	79	817190412	Screw Hex Wsh 1/4-20 Unc x 3/4
24	532124130	Support Pnt Dash	80	819091016	Washer 9/32 x 5/8 x 16 Ga.
26	873220400	Nut Fin Hex 1/4 - 20 Unc	86	532121236	Spacer Split 59/ x 1.25 Blk/zin
27	874180512	Screw mach Trhd 5/16 - 18 UNC x 3/4	88	874760532	Bolt Fin Hex 5/16 - 18 x 2
28	532131681	Grille Asm	89	873800500	Nut Lock Hx w/Ins. 5/16 - 18
29	532105531	Nut Push Nylon	91	874780616	Bolt Hex 3/8 - 16 x 3/4
30	532144523	Fender Pnt	92	873800600	Nut Lock 3/8
31	532137113	Bracket Pnt Fender	94	874780616	Bolt Fin Hex 3/8 - 16 Unc x 1
32	817490612	Screw Thdol 3/8 - 16 x 3/4 Ty-TT	95	819131312	Washer 13/32 x 13/16 x 12 Ga
33	532124888	Footrest Pnt Lh	96	873800600	Nut Lock 3/8 - 16 Unc
34	532124889	Footrest Pnt Th	100	532124996	Clip Line Fuel 13/32 Mtg Hole
35	872110606	Bolt Rdhd Sht Sqnk 3/8 - 16 x 3/4	101	532126471	Clip Insulator
36	873800600	Nut Lock 3/8 - 16 Unc	103	532139886	Bracket Asm Pivot Lh
37	532133671	Pad Footrest	104	532139887	Bracket Asm Pivot Rh
38	532124978	Strap Grille	105	872140608	Bolt Carriage
39	873510500	Nut Keps 5/16 - 18 UNC	106	532140675	Strap Asm. Fender
41	532106784	Strap Asm Pnt Hinge Rear (blk)	110	532110436	Bushing Snap Split
42	532104618	Strap Asm Pnt Hinge Front	111	532142992	Stop Over Center
43	873510400	Nut Keps Hex 1/4 - 20 UNC	112	872240608	Bolt Carriage 3/8-16 x 1
44	532109808	Latch Chute Blk	113	819131612	Washer 13/32 x 1 x 12 Ga.
45	874191008	Screw Mach Cr Pan #10-24 x 1/2			
46	810071000	Washer Lock #10			

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51

DRIVE



REPAIR PARTS

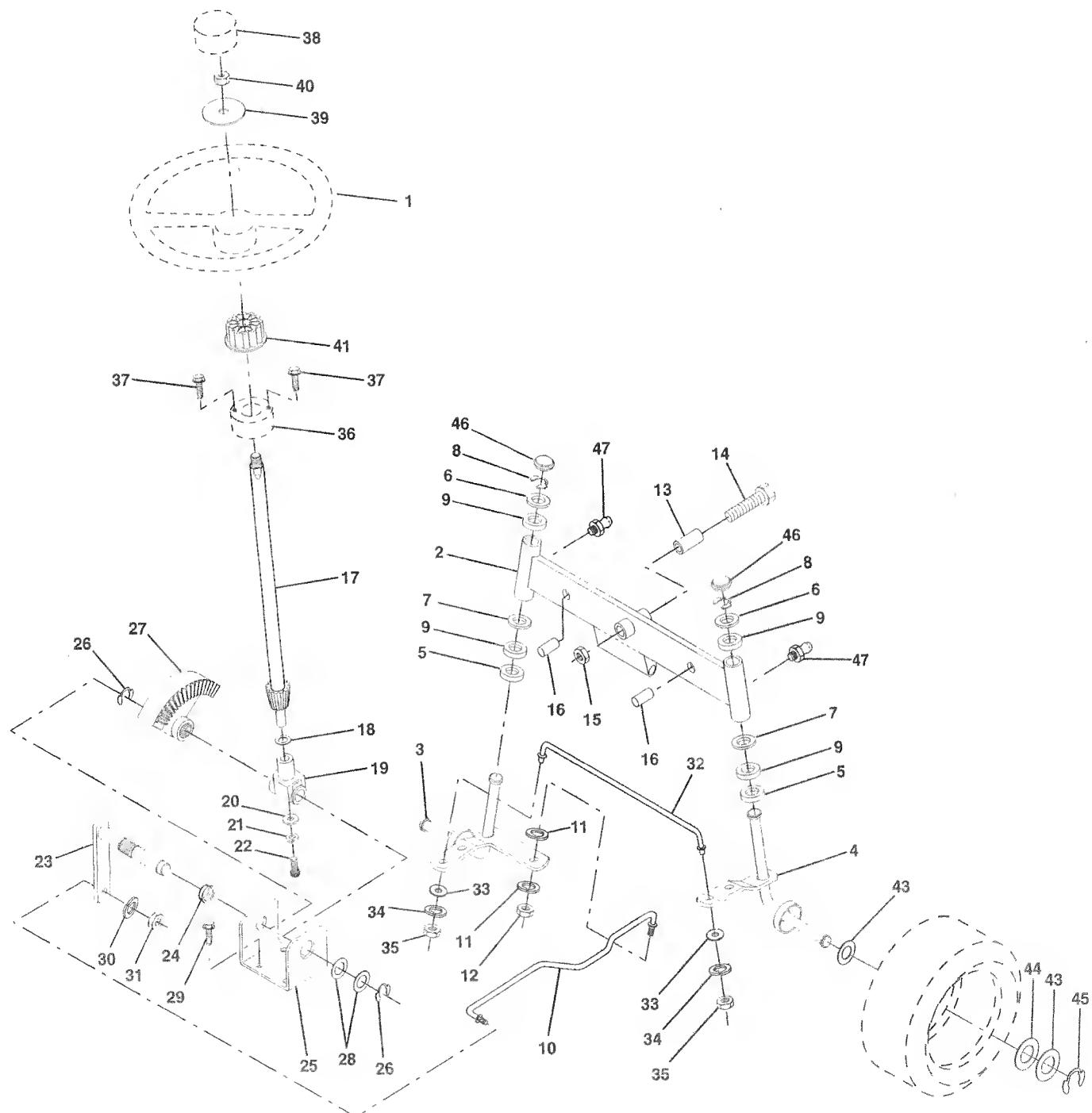
16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51 DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532142607	Transaxle 6sp Dana LT Model # 4360-81	49	532123205	Retainer Belt Style Spring
2	532110422	Spring Return Brake T/a Zinc	50	874760624	Bolt Hex Hd 3/8-16unc X 1-1/2
3	532123666	Pulley Transaxle 20"tires	51	873680600	Nut Crownlock 3/8-16 Unc
4	812000028	Ring Retainer # 5100-62	52	819131316	Washer 13/32 X 13/16 X 16 Ga
5	532121520	Strap Torque 30 Degrees	53	532105710	Link Clutch 7 66
6	817490512	Screw Thdrol 5/16-18 X 3/4 TYT	54	876020412	Pin Cotter 1/8 X 3/4 Cad
8	532141002	Rod Shifter	55	532105709	Spring Return Clutch 6 75
10	876020416	Pin Cotter 1/8 X 1 Cad	56	876020412	Pin Cotter 1/8 X 3/4 Cad
11	532105701	Washer Plate Shf 388 Sq Hole	57	532130801	V-Belt Ground Drive 95 25 42"
12	819151216	Washer 15/32 X 3/4 X 16 Ga	58	532127274	Keeper Belt RH LT Pnt/zinc 16g
13	871040412	Bolt Fin Hex 1/4-28unfx3/4 Gr8	59	532140312	Keeper Belt Chassis Span Ctr
14	810040400	Washer Lock Hvy Helical 1/4	60	817490612	Screw Thdrol 3/8-16x3/4 Ty-tt
15	874780544	Bolt Fin Hex 5/16-18uncx 2 3/4	62	532124872	Cover Pedal Blk Round
16	873800500	Nut Lock H w/insert 5/16-18	63	532140189	Engine Pulley LT/YT
17	532121520	Strap Torque LT	64	871170768	Bolt, Hex 7/16-20 x 4-1/4
18	874760616	Bolt Fin Hex 3/8-16unc X 1 Gr. 5	65	810040700	Washer Lock Hvy Hlcl Spr 7/16
19	873800600	Nut Lock 3/8-16 Unc	66	532121218	Keeper Belt Engine LH LT
20	817490512	Screw Thdrol 5/16-18 X 3/4 TYT	67	874760616	Bolt Fin Hex 3/8-16unc X 1
21	532121274	Knob Duckhead 3/8-16unc Blk	68	819131312	Washer 13/32 X 13/16 X 12 Ga
22	532130804	Rod Brake Blk Zinc 27 326	69	873680600	Nut Crownlock 3/8-16 Unc
23	873800600	Nut Lock Hex W/wsh 3/8-16unc	70	532105730	Keeper Belt Engine BZP Zinc
24	873350600	Nut Hex Jam 3/8-16 Unc	74	532109502	Spacer Split
25	532106888	Spring Rod Brake 2 00 Zinc	75	532121749	Washer 25/32 X 1 1/4 X 16 Ga
26	819131316	Washer 13/32 X 13/16 X 16 Ga	76	812000001	E-ring #5133-75
27	876020412	Pin Cotter 1/8 X 3/4 Cad	77	532123583	Key Square 2 0 X 1845/ 1865
28	532133261	Rod Brake Parking 14 500	78	532121748	Washer 25/32 X 1-5/8 X 16 Ga
29	532071673	Cap Brake Parking Black	80	532131487	Arm Shift Transaxle
30	532130807	Bracket Mtg Transaxle	81	532136933	Shaft Asm Cross 20"t 42"deck
31	532127275	Keeper Belt LH LT 14 Ga	82	532123782	Spring Torsion T/a
32	874760512	Bolt Hex Hd 5/16-18unc X 3/4	83	819171216	Washer 17/32 X 3/4 X 16 Ga
33	873800500	Nut Lock 5/16-18	84	532132183	Rod Tie Shift Adj Ball
34	532122424	Shaft Asm Pedal Foot 1 930	85	873530400	Nut Nylock 1/4-28
35	532120183	Bearing Nylon Blk 629 Id	86	532071208	Bushing Rod Strg 629/632 Id
36	819211616	Washer 21/32 X 1 X 16 Ga	87	819212016	Washer 21/32 X 1-1/4 X 16 Ga
37	532124963	Pin Roll 3/16 X 1"	88	812000008	Ring Klip #5304-62
38	532123674	Pulley Idler Flat	89	532139991	Console Shift 6sp W/ign LT
39	874760644	Bolt Fin Hex 3/8-16unc X 2-3/4	90	532124346	Nut Self-thd wsh-hd 1/4 zinc
40	532124965	Spacer Split 395 X 59 Bzp	95	817490612	Screw Thdrol 3/8-16 x 3/4
41	532109070	Keeper Belt Retainer	100	819111216	Washer 11/32 x 3/4 x 16 Ga.
42	819131312	Washer 13/32 X 13/16 X 12 Ga	107	872140506	Bolt, Carriage 5/16-18 x 3/4
43	873800600	Nut Lock 3/8-16 Unc	108	873680500	Nut Crownlock 5/16 - 18
44	532105706	Bearing Nyl 503 X 628 X 1 25	109	532137141	Bracket Asm. Clutch
45	532110812	Washer Hardened	110	532137140	Clutch Electric
46	812000039	Ring Klip #15304-50	111	819111012	Washer 11/32 x 5/8 x 12 Ga.
47	532127783	Pulley Idler V Groove Plastic	112	532126197	Washer 1-1/2 OD X 15/32 ID X .250
48	532123789	Bellcrank Asm Clutch			

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51
STEERING ASSEMBLY



REPAIR PARTS

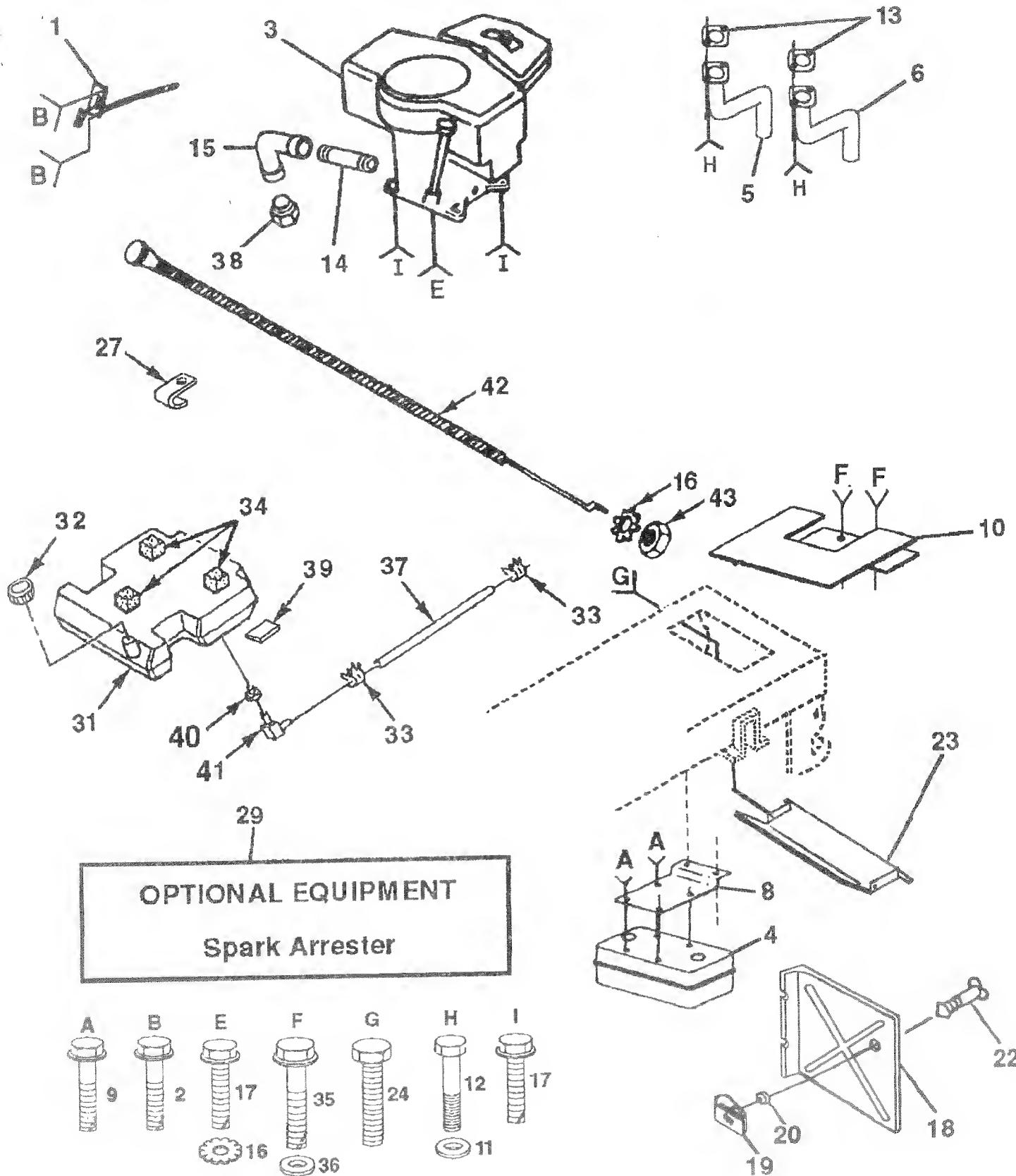
16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51 STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1	532121472	Wheel Steering Auto Blk
2	532142033	Axle Asm Fr LT W/gzks 38/42
3	532135227	Spindle Asm LH
4	532135228	Spindle Asm RH
5	532124931	Bearing Race Thrust Harden
6	532121748	Washer 25/32 X 1-5/8 X 16 Ga
7	819272016	Washer 27/32 X 1-1/4 X 16 Ga
8	812000029	Ring Klip #t5304-75
9	532124937	Bearing Col Strg Blk
10	532130468	Link Drag Sol Ball Jt 20 064
11	810040600	Washer Lock Hvy Hlcl Spr 3/8
12	873610600	Nut Fin Hex 3/8-24 Unf
13	532110438	Spacer Bearing Axle Front
14	874011056	Bolt Hex 5/8-11 Unc X 3-1/2
15	873901000	Nut Lock Flange 5/8-11 Unc
16	532132624	Pin Axle 5/8 X 1 55/1 54 Lg
17	532128762	Shaft Asm Strg 20 31 x 3/4 YP YT
18	532057079	Washer Thrust 515x 750x 033
19	532124035	Support Shaft
20	532126684	Washer Shim 1/4 X 5/8 X 062
21	810040400	Washer Lock Hvy Helical 1/4
22	871070410	Screw Hex Socket 1/4-20 X 5/8
23	532127501	Shaft Asm Pittman
24	532109816	Nyliner Snap In
25	532124036	Bracket Steering
26	812000029	Ring Klip #t5304-75
27	532136874	Gear Sector
28	532124931	Bearing Race Thrust Harden
29	817490612	Screw Thdrol 3/8-16x3/4 Ty-It
30	810040600	Washer Lock Hvy Hlcl Spr 3/8
31	873610600	Nut Fin Hex 3/8-24 Unf
32	532130467	Rod Tie Wire Form 19 75 Elec
33	819111216	Washer 11/32 x 3/4 x 16 Ga.
34	810040500	Washer, Lock Hvy Hlcl Spr 5/16
35	873810500	Locknut 5/16-24 Unf
36	532124720	Bushing Strg Blk 742/747 Id
37	817431008	Screw SlfTp #10-16 X 1/2 Ty-b
38	532126805	Insert Cap Strg Wh Aut Gen Blk
39	532100712	Washer 53 X 2 25 X 160 Zinc
40	873940800	Nut Hex Jam Toplock 1/2-20 Unf
41	532100711	Adapter Wheel Strg 758/ 753id
43	532121749	Washer 25/32 X 1 1/4 X 16 Ga
44	532121748	Washer 25/32 X 1-5/8 X 16 Ga
45	812000029	Ring Klip #t5304-75
46	532121232	Cap Spindle Fr Top Blk
47	532124836	Fitting Grease

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51
ENGINE



REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51 ENGINE

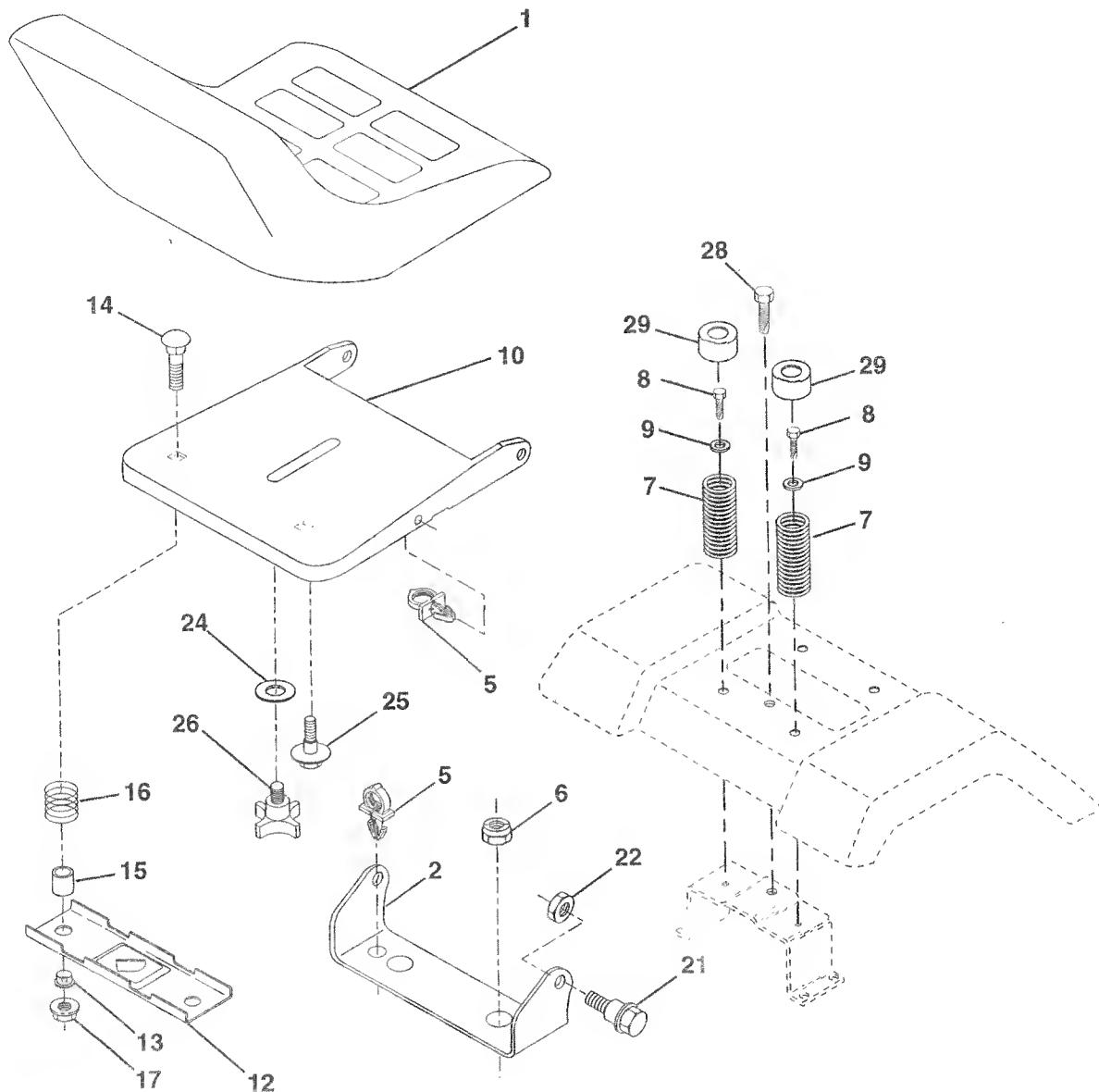
KEY NO.	PART NO.	DESCRIPTION
1	532137214	Control RH Blk Flg 37 88
2	817720410	Screw Hex Thd Cut 1/4-20x5/8 T
3	-----	Engine Model No. MV18-PS 58559
4	532137978	Muffler LT B&S
5	532136215	Tube Manifold LH
6	532136216	Tube Manifold RH
8	532122439	Bracket Muffler Mounting
9	817190408	Screw Hex Wsh Thd Cut 1/4-20
10	532143600	Shield Heat LT
11	810040500	Washer Lock Hvy Hlcl 1/4 (Order from Engine Manufacturer)
12	874570512	Bolt, Fin Hex 1/4-20 x 3/4 (Order from Engine Manufacturer)
13	-----	Muffler Gasket (Order from Engine Manufacturer)
14	813280336	Nipple Pipe 3/8 Npt X 4-1/2"
15	813200300	Elbow Std 90 Degree 3/8-18 Npt
16	811050600	Washer Lock Ext Tooth 3/8
17	817490624	Screw Thdrol 3/8-16 x 1-1/2
18	532133747	Shield Heat Mech
19	532105839	Receptacle 1/4 Turn
20	532105838	Retainer 1/4 Turn
22	532123650	Stud 1/4 Turn
23	532128953	Shield Heat Browning LT/YT
24	817021008	Screw Tap Hex #10-24unc X 1/2
27	532002751	Clip, Fuel Line
29	532137180	Kit Spark Arrestor (Flat Scrn)
31	532141069	Tank Fuel 3 50 Rear
32	532140527	Cap Asm Fuel W/sym Vented
33	532123487	Clamp Hose Blk
34	532106082	Pad, Spacer
35	817490512	Screw Thdrol 5/16-18 x 3/4
36	819131614	Washer 13/32 x 1-1/4 x 14 Ga.
37	532008543	Line Fuel 54"
38	-----	Plug Oil Drain (Order From Engine Manufacturer)
39	532109227	Pad, Idler
40	532124952	Bushing
41	532139277	Stem Tank Fuel
42	532132782	Choke Control
43	873610600	Nut, Fin Hex 3/8-24 Unf

NOTE: All component dimensions given in U.S. inches.
1 inch = 25.4 mm

REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51

SEAT ASSEMBLY



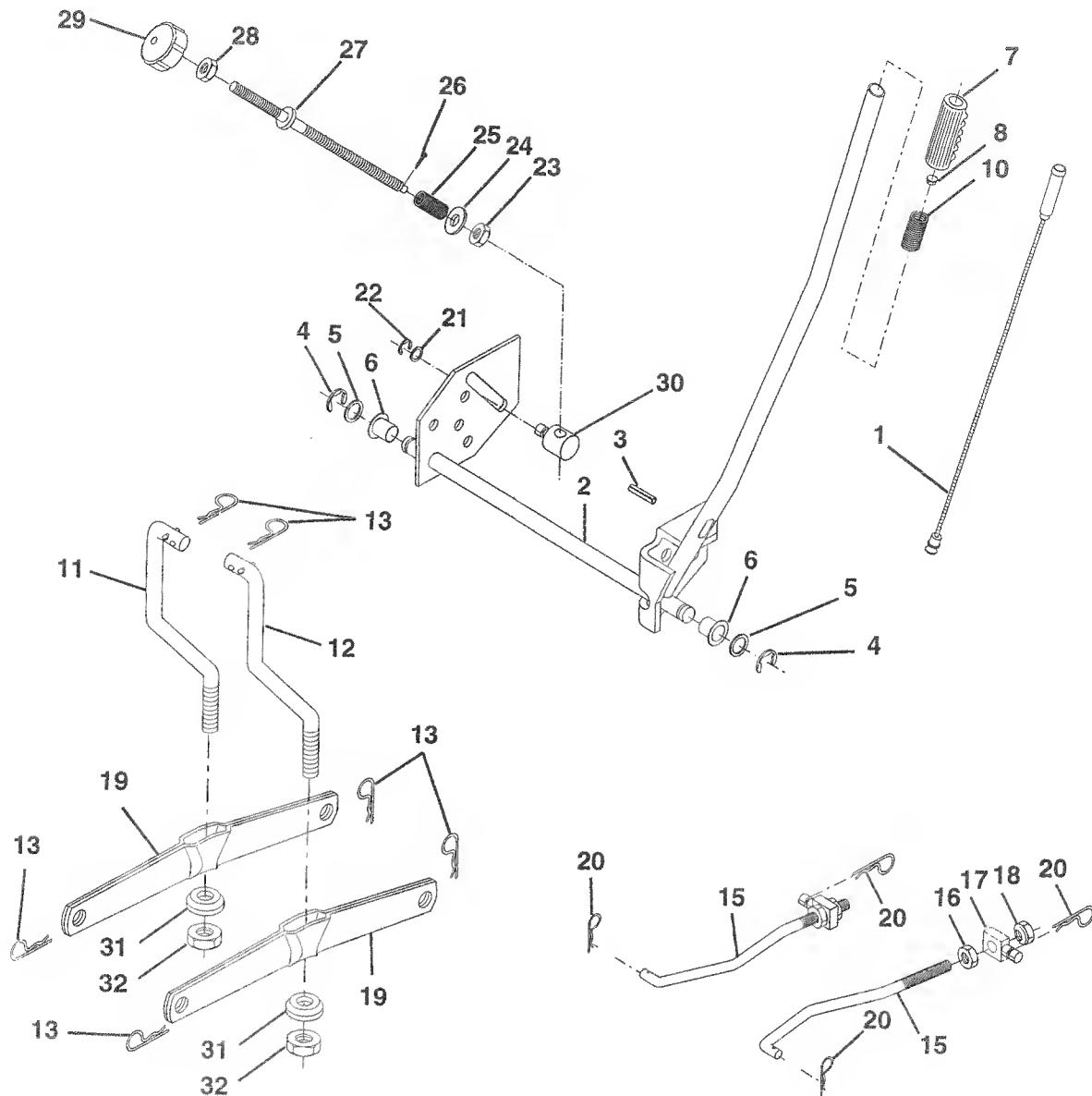
KEY NO.	PART NO.	DESCRIPTION
1	532127440	Seat V-560 Blk/blk Std
2	532140551	Bracket Pivot Seat 8 720
5	532140407	Clip Push-in .375 x .250
6	873680600	Nut Crownlock 3/8-16 Unc
7	532124181	Spring Seat Cprsn 2 250 Blk Zi
8	817490508	Screw Hwsh Thdrol 5/16-18 x 1/2
9	819131614	Washer 13/32 X 1 X 14 Ga
10	532140552	Pan Seat
12	532121246	Bracket Mounting Switch
13	532121248	Bushing Snap Blk Nyl 50 Id
14	872050411	Bolt Rdhd Sht Nk 1/4-20x1-3/8
15	532121249	Spacer Split 28x 88 Yel Zinc

KEY NO.	PART NO.	DESCRIPTION
16	532123740	Spring Cprsn 1 310 Blk Pnt
17	532123976	Nut Lock 1/4 Lge Flg Gr 5 Zinc
21	532139888	Bolt Shoulder 5/16-18 Unc Blkz
22	873680500	Nut Crown Lock 5/16-18
24	819171912	Washer 17/32 X 1-3/16 X 12 Ga
25	532127018	Bolt Shoulder 5/16-18 X 62
26	532120068	Knob Seat 1/2-13unc Blk
28	817490608	Screw Thdrol 3/8 - 16 x 1/2 Ty-TT
29	532124238	Cap Spring Seat

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51
MOWER LIFT ASSEMBLY



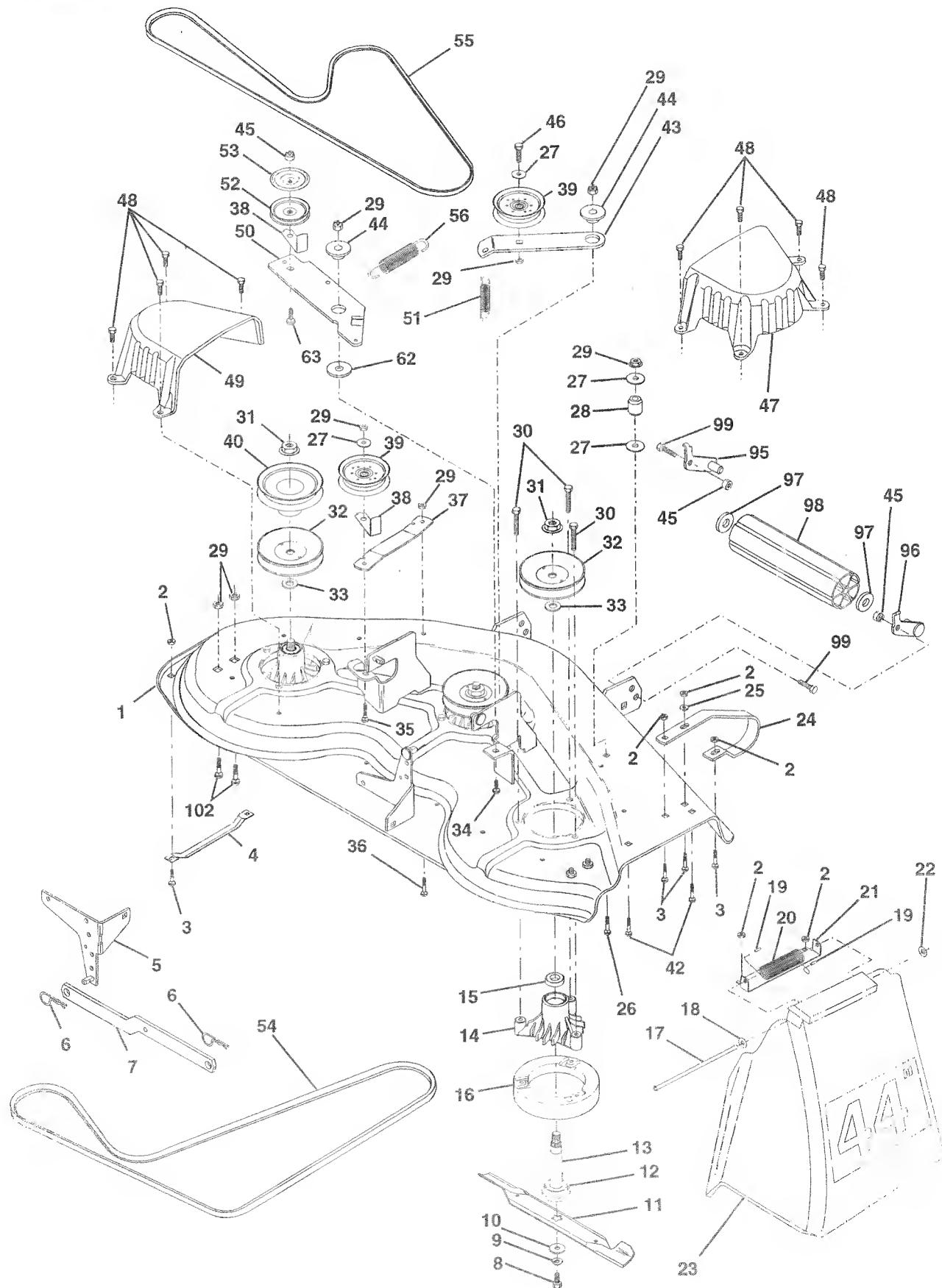
KEY NO.	PART NO.	DESCRIPTION
1	532136971	Wire Asm Inner W/plunger 20 56
2	532136968	Shaft Asm Lift RH w/Inf W/T
3	532138284	Pin Groove 1 500 Zinc
4	812000002	E Ring #5133-62
5	819211621	Washer 21/32 X 1 X 21 Ga
6	532120183	Bearing Nylon Blk 629 Id
7	532109413	Grip Handle Bicycle
8	532124526	Button Plunger Black
10	532122512	Spring Cprsn 3 750 Oiled
11	532139865	Link Lift LH Fixed Length
12	532139866	Link Lift RH Fixed Length
13	532124670	Retainer Spring
15	532127218	Link Front
16	873350800	Nut Jam Hex 1/2-13 Unc
17	532130171	Trunnion Blk Zinc
18	873800800	Nut Lock W/wsh 1/2-13unc

KEY NO.	PART NO.	DESCRIPTION
19	532139868	Arm Suspension Rear
20	532124660	Retainer Spring
21	819151216	Washer 15/32 X 3/4 X 16 Ga
22	812000037	Ring Klip #t5304-37
23	532110807	Nut Special
24	819131016	Washer 13/32 X 5/8 X 16 Ga
25	532124874	Spring 2-1/8"
26	876020308	Pin Cotter 3/32 X 1/2
27	532110729	Rod Adj Lift Zinc 9 00 Wrk Lg
28	873350600	Nut Hex Jam 3/8-16 Unc
29	532138057	Knob Inf 3/8-16 Unc Blk W/sym
30	532110810	Trunnion Dp Stop Dbl Thds PLT
31	532140302	Bearing Pvt Lift Spherical
32	873810600	Nut Nylock 3/8-24

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51
44" MOWER



REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51 44" MOWER

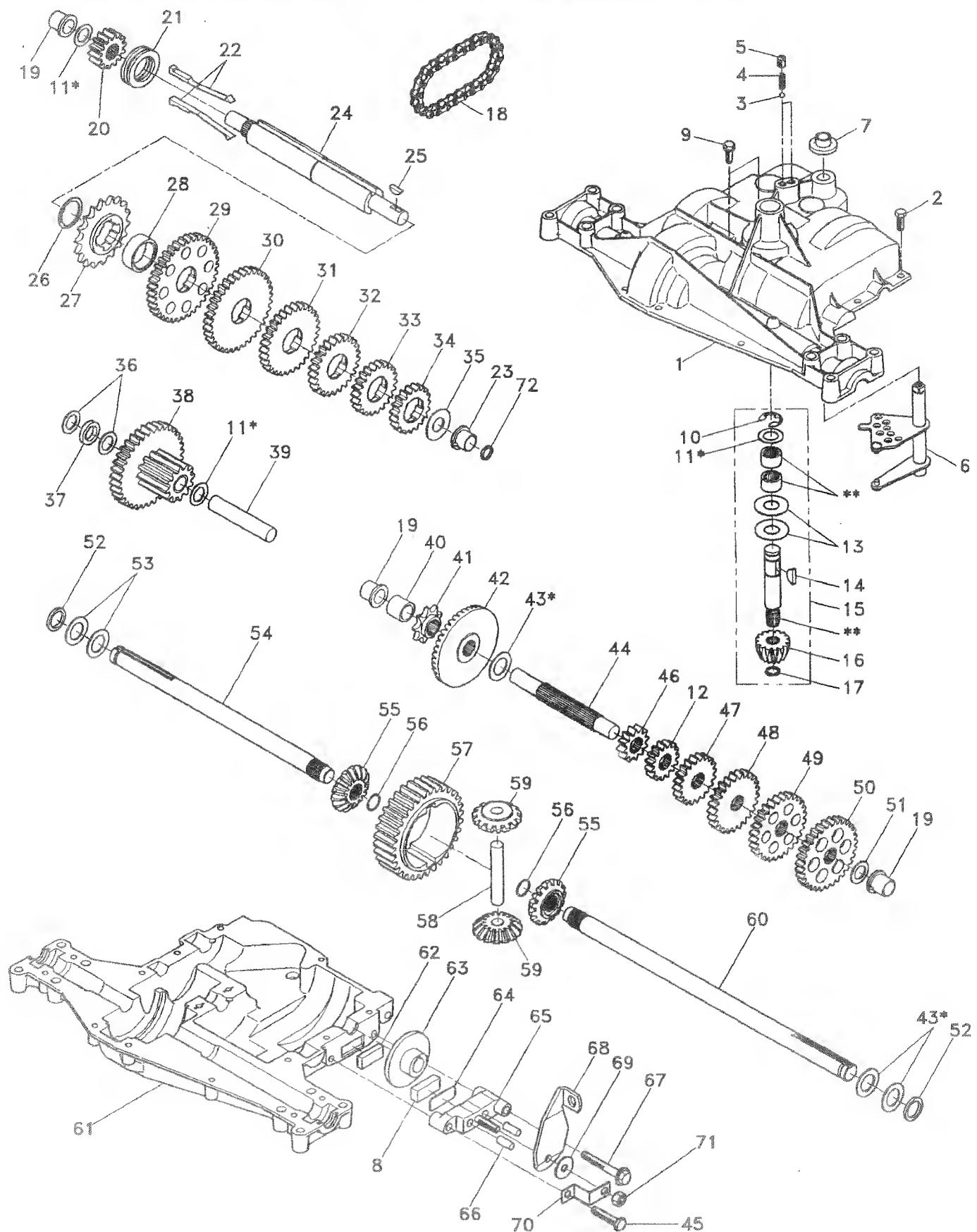
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532140579	Deck Asm., Mower 44" Vented	35	872110616	Bolt, Carriage 3/8-16 x 2
2	873800500	Locknut, Hex W/Ins 5/16-18 Unc	36	872110608	Bolt, Carriage 3/8-16 x 1 Gr. 5
3	872110506	Bolt, Carriage 5/16-18 x 3/4	37	532137166	Stiffener, Arm Idler
4	532125074	Runner, Mower LH	38	532137554	Keeper, Belt Idler
5	532138457	Bracket Asm., Sway Bar	39	532131494	Pulley, Idler Flat
6	532124670	Retainer, Spring	40	532136572	Pulley, Driven
7	532130832	Arm Suspension, Rear	42	872140506	Bolt, Carriage 5/16-18 Unc x 3/4
8	532850857	Bolt 3/8-24 x 1.25 Gr. 8 Patched	43	532136460	Arm, Idler Secondary
9	810030600	Washer, Lock Hvy 3/8 Unplated	44	532122052	Spacer, Retainer
10	532140296	Washer, Hard Blade Mower Vented	45	873680600	Nut, Crownlock 3/8-16 Unc
11	532130652	Blade (3 Required)	46	874760628	Bolt, Fin Hex 3/8-16 Unc x 1-3/4
12	532129895	Bearing, Ball #6204 (Mandrel)	47	532137200	Cover, Mandrel RH
13	532137553	Shaft Asm., W/Lower Brg (Includes Key No. 12)	48	532137729	Screw, Thd Roll 1/4-20 x 5/8
14	532137152	Housing, Mandrel 44" Vent	49	532136574	Cover, Mandrel LH
15	532110485	Bearing, Ball Mandrel	50	532137272	Arm, Idler Primary
16	532140329	Stripper, Mower Vented	51	532137273	Spring, Secondary
17	532106735	Rod, Hinge	52	532139245	Pulley, Idler V Groove
18	819111016	Washer 11/32 x 5/8 x 16 Ga.	53	532137789	Shield, Idler
19	532105304	Cap, Sleeve	54	532131264	V-Belt, Mower Primary
20	532123713	Spring, Torsion Deflector	55	532131290	V-Belt, Mower Secondary
21	532137607	Bracket, Deflector	56	532138687	Spring, Primary
22	532110452	Nut, Push	62	532133943	Washer Hardened
23	532109785	Shield, Deflector Mower	63	872110612	Bolt Carriage 3/8-16 x 1-1/2
24	532136321	Runner, RH	64	819121414	Washer 3/8 x 3/4 x 14Ga
25	819111216	Washer 11/32 x 3/4 x 16 Ga.	67	873930600	Nut Centerlock 3/8-16
26	872110614	Bolt, Carriage 3/8-16 x 1-3/4 Gr. 5	95	532132274	Bracket Asm. Noseroller LH
27	819131316	Washer 13/32 x 13/16 x 16 Ga.	96	532132273	Bracket Asm. Noseroller RH
28	532132823	Spacer, Spring Stop Idler	97	819171416	Washer 17/32 x 7/8 x 16 Ga.
29	873800600	Nut, Lock Hex W/Wsh 3/8-16 Unc	98	532132264	Roller, Nose
30	532138776	Screw Thdrol. Hex Hd Zinc Mower	99	874760616	Bolt Hex 3/8-16 x 1
31	532137266	Nut, Flg Top Lock Cntr 9/16	102	872110606	Bolt Carriage 3/8-16 x 3/4
32	532129861	Pulley, Mandrel	--	532143651	Mandrel Asm. Service
33	532129963	Washer, Spacer Mower Vented	--	532144075	Mower Service
34	872140610	Bolt, Carriage 3/8-16 x 1-1/4			

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51

DANA TRANSAXLE -- MODEL NUMBER 4360-81



REPAIR PARTS

16 HP 44" TRACTOR - MODEL NO. PP1644J (PP1644JA), PRODUCT NO. 954 00 52-51

DANA TRANSAXLE - - MODEL NUMBER 4360-81

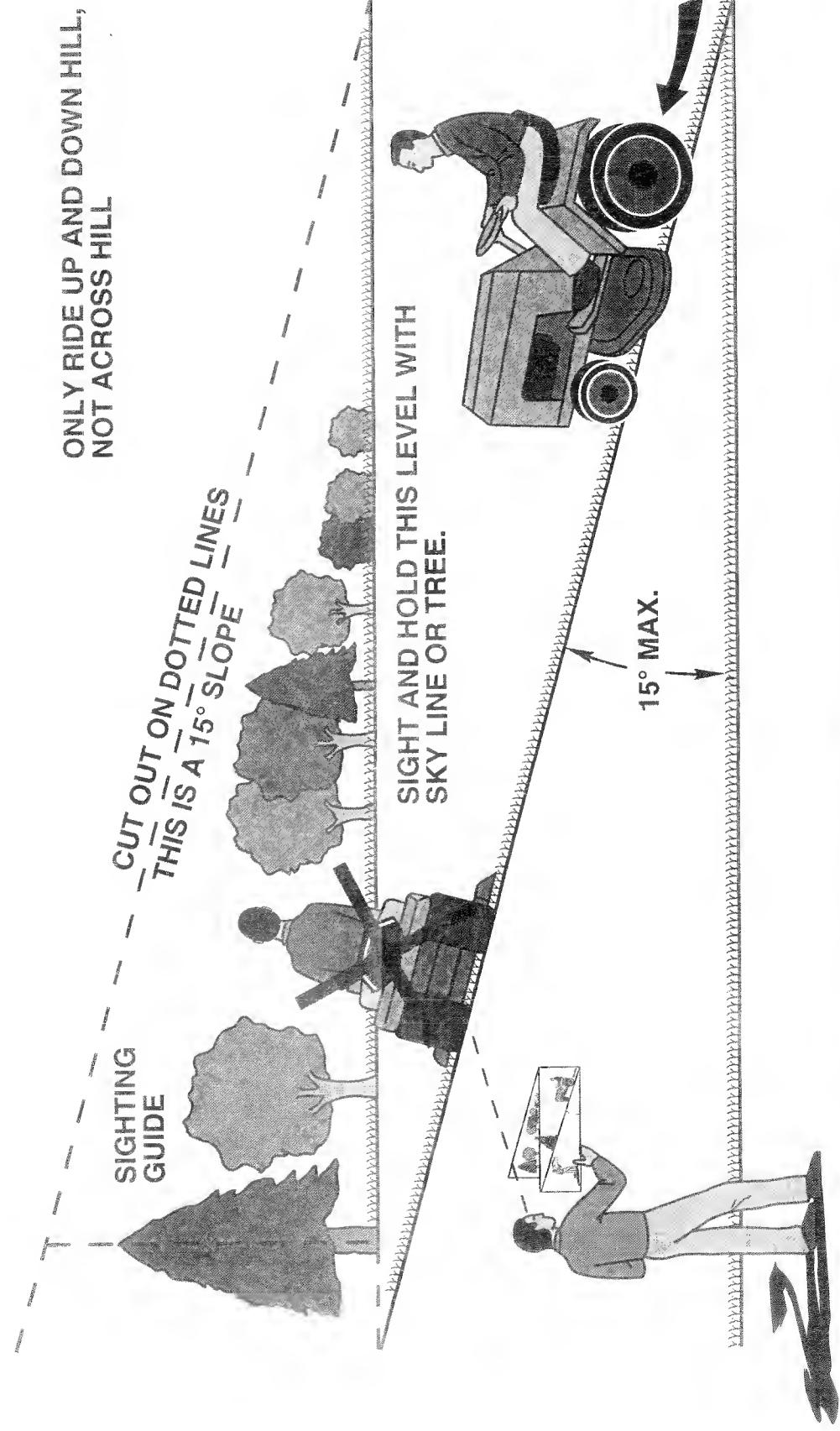
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532142671	Housing, Upper	41	532105928	Sprocket, 9 Teeth
2	532002274	Screw, Self-Tapping, Large 1/4-20 x .734	42	532106605	Gear, Bevel, 42 Teeth
3	532134400	Ball, Detent	43	532134394	* Assembly, Kit, Shim .750 Shaft
4	532105904	Spring, Detent	44	532120473	Shaft, Drive
5	532105905	Screw, Set	45	532106596	Screw, Self-Tapping, Large 5/16-18 x 1.44
6	532134788	Kit, Shifter Assembly	46	532142678	Gear, Spur, 12 Teeth
7	532134399	Boot, Shifter	47	532120407	Gear, Spur, 20 Teeth
8	532120951	Puck, Friction	48	532106589	Gear, Spur, 25 Teeth
9	532134791	Screw, Self-Tapping, with Sealer	49	532120408	Gear, Spur, 28 Teeth
10	532142672	Ring, Retaining	50	532105937	Gear, Spur, 31 Teeth
11	532134793	* Assembly, Kit, Shim .625 Shaft	51	532002226	Washer, Plain .632 x 1.00 x .060
12	532142679	Gear, Spur, 15 Teeth	52	532134401	Washer, Neoprene
13	532120415	Washer, Plain .632 x 1.38 x .046	53	532002264	Washer, Plain .758 x 1.25 x .031
14	532142674	Key, Woodruff, #9	54	532120474	Axle, L.H.
15	532106846	Assembly, Kit, Input Shaft	55	532120409	Gear, Miter, 15 Teeth
16	532106095	Pinion, Bevel, 14 Teeth	56	532105941	Ring, Retaining
17	532105909	Ring, Retaining	57	532110071	Gear, Spur, 32 Teeth
18	532105910	Chain, 24 Pitches	58	532120952	Shaft, Cross
19	532105911	Bearing, Flange	59	532106592	Gear, Miter, 15 Teeth
20	532142675	Gear, Spur, 14 Teeth	60	532123908	Axle, R.H.
21	532138246	Collar, Clutch	61	532142680	Housing, Lower
22	532138237	Assembly, Kit, Clutch Keys	62	532120961	Puck, Friction
23	532143051	Bearing, Flange	63	532007294	Disc, Brake
24	532142676	Shaft, Intermediate	64	532108989	Spacer
25	532002244	Key, Woodruff, #61	65	532120953	Jaw, Brake
26	532105916	Ring, Retaining	66	532120954	Pin, Dowel
27	532120470	Sprocket, 18 Teeth	67	532134799	Screw, Self-Tapping, Large 5/16-18 x 2.25
28	532110070	Spacer	68	532138244	Lever, Actuating
29	532142677	Gear, Spur, 37 Teeth	69	532108996	Washer, Plain .321 x 1.00 x .055
30	532142681	Gear, Spur, 35 Teeth	70	532120956	Bracket, Anti-Rotation
31	532120405	Gear, Spur, 30 Teeth	71	873810500	Locknut 5/16-24
32	532108980	Gear, Spur, 25 Teeth	72	532143045	Seal, Oil
33	532120406	Gear, Spur, 22 Teeth	73	532120416	Grease
34	532134796	Gear, Spur, 19 Teeth			
35	532105925	Washer, Plain .640 x 1.37 x .061			
36	532002232	Washer, Plain .632 x 1.00 x .026			
37	532108978	Spacer .630 x 1.00 x .169			
38	532110079	Assembly, Gear, Combination of 12 Teeth and 35 Teeth			
39	532124639	Shaft, Idler			
40	532120472	Spacer .635 x .875 x .755			

* Use in combinations to maintain proper clearances

** Order Key No. 15

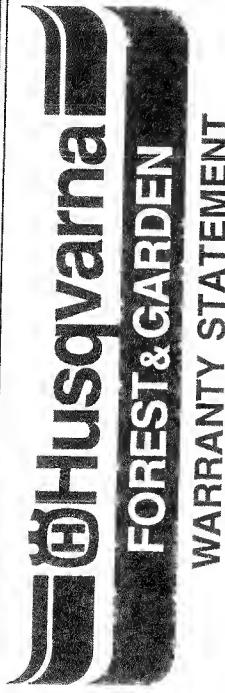
NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



Operate your Tractor up and down the face of slopes (not greater than 15°), never across the face. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.





SECTION 1: LIMITED WARRANTY

Husqvarna Forest & Garden Company ("Husqvarna") warrants Husqvarna product to the original purchaser to be free from defective material and workmanship from the date of purchase for the "Warranty Period" here stated dependent upon the type of product use. Warranty period is as follows for products listed:

- 5 Year Warranty: Plastic walk behind mower decks for noncommercial, noninstitutional or nonincome producing use.
- 2 Year Warranty: Riding lawn mowers, yard and garden tractors, walk behind mowers, tillers and attachments for noncommercial, noninstitutional or nonincome producing use. Ignition coils or modules on the chain saws, clearing saws and trimmers.
- 1 Year Warranty: Chain saws, clearing saws, trimmers, blowers and batteries for noncommercial, noninstitutional or nonincome producing use.
- 90 Day Warranty: Any Husqvarna product used for rental, commercial, professional, or income producing use.
- 30 Day Warranty: Husqvarna professional bow bars.
- 30 Day Replacement Part Warranty: Unless otherwise stated, replacement parts are warranted for 30 days from date of purchase.

SECTION 2: HUSQVARNA'S OBLIGATIONS UNDER THE WARRANTY

Husqvarna will remedy defects in material and workmanship during the warranty period by repairing or replacing, at Husqvarna's option, the defective component without charge for parts or labor.

SECTION 3: ITEMS NOT COVERED BY THIS WARRANTY

The following items are not covered by this warranty:

- (1) Normal customer maintenance items (i.e., belts, blades, blade adapters, bulbs, filters, guide bars, lubricants, rewind springs, saw chain, spark plugs, starter ropes and lines).
- (2) Normal wear, normal adjustment, standard hardware or items worn through regular use.
- (3) Natural discoloration of material due to ultraviolet light.
- (4) The replacement or maintenance of worn items.
- (5) Briggs & Stratton, Kawasaki, and Kohler engines, including starters, generators, alternators and accessories. These items are covered by the engine manufacturer's warranty as stated with the generators, alternators and accessories should be sent to the appropriate manufacturer.
- (6) Agri-Fab, Fy-foe, and Tecumseh Pneumatic drive systems. These items are covered by the drive system manufacturer's warranty as stated with the product information supplied at the time of purchase. All claims for specified drive systems should be sent to the appropriate manufacturer.

SECTION 4: EXCEPTIONS AND LIMITATIONS

This warranty shall be inapplicable to defects resulting from the following:

- (1) Accident, abuse, misuse, negligence and neglect, including stale fuel, dirt abrasives, moisture, rust, corrosion, or any adverse reaction due to incorrect storage habits.

WARRANTY STATEMENT

(2) Failure to operate or maintain the unit in accordance with the Owner's/Operator's manual or instruction sheet furnished by Husqvarna.

- (3) Alterations or modifications that affect the unit's performance, operation, safety, durability, change its intended use, or cause failure of compliance with current regulatory standards or applicable federal, state or local laws.
- (4) Use of parts or accessories which are not recommended by Husqvarna Forest & Garden Company.
- (5) Additional damage to parts or components due to continued use occurring after any of the above.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. HUSQVARNA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THESE PRODUCTS EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY IS LIMITED IN DURATION TO THE WARRANTY PERIOD AS DEFINED IN THE LIMITED WARRANTY STATEMENT. HUSQVARNA RESERVES THE RIGHT TO CHANGE OR IMPROVE THE DESIGN OF THE PRODUCT WITHOUT NOTICE, AND DOES NOT ASSUME OBLIGATION TO UPDATE PREVIOUSLY MANUFACTURED PRODUCTS.

Some states do not allow the exclusion of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SECTION 5: CUSTOMER RESPONSIBILITIES

The customer must exhibit reasonable care, maintenance, operation, storage and general upkeep as written in the maintenance section of the Owner's/Operator's manual. Should an operational problem or failure occur, the product should not be used, but delivered as is to an authorized Husqvarna dealer for evaluation. Proof of purchase, as explained in section 6, rests solely with the customer.

SECTION 6: PROCEDURE TO OBTAIN WARRANTY CONSIDERATION

It is the Owner's and Dealer's responsibility to make certain that the Warranty Registration Card is properly filled out and mailed to Husqvarna Forest & Garden Company. This card should be mailed within ten (10) days from the date of purchase in order to validate the warranty and to provide post-sale service.

Proof of purchase must be presented to the authorized Husqvarna dealer in order to obtain warranty service. This receipt must include date purchased, model number, serial number, and complete name and address of the selling dealer.

To obtain the benefit of this warranty, the product believed to be defective must be delivered in a timely manner, within thirty (30) days from date of operational problem or failure, and during the warranty period, to any authorized Husqvarna dealer. The product must be delivered to the dealer, at the owner's expense. An authorized Husqvarna dealer can be normally located through the "Yellow Pages" of the local telephone directory.

HUSQVARNA FOREST & GARDEN CO.

**9006-J PERIMETER WOODS DRIVE
CHARLOTTE, NORTH CAROLINA 28216**

PARTS AND SERVICE

Your POULAN PRO product has been expertly engineered and carefully manufactured to rigid quality standards. As with all mechanical products, some adjustments or part replacement may be necessary during the life of your unit.

FOR SERVICE OR REPLACEMENT PARTS:

1. Consult your dealer/place of purchase.
2. Consult the yellow pages of your phone directory for the name of the nearest Poulan/Weed Eater Master Service Dealer (under "saws" for Chain Saws or under "lawn mowers" for Trimmers, Brushcutters, and Blowers).
3. For replacement parts, have available the following information:
 - a. Description of the tool.
 - b. Model Number.
 - c. Description of part.

NOTE: Poulan/Weed Eater Division provides parts and service through its authorized distributors and dealers; therefore, all requests for parts and service should be directed to your local dealer(s). The philosophy of Poulan/Weed Eater Division is to continually improve all of its products. If the operating characteristics or the appearance of your product differs from those described in this Owner's Manual, please contact your local Poulan/Weed Eater Dealer for updated information and assistance. Always update your tool when improvements are made available, especially those related to safety. Parts and repair service are not available directly from Poulan/Weed Eater Division White Consolidated Industries, Inc.

POULAN/WEED EATER
DIVISION WHITE CONSOLIDATED INDUSTRIES, INC.
Shreveport, Louisiana 71139-9329